MAY 1961

Traffic Safety

A NATIONAL SAFETY COUNCIL PUBLICATION

REFINERY ACTS TO CUT OFF-JOB ACCIDENT TOLL

— Page 32

Some Average Drivers Tell

Why They Don't Wear Seat Belts

. . . you can snap your neck

. . . people get thrown clear

. . . I don't drive at high speeds

. . . feel as if I'm in an electric chair

. . . won't stop you from hitting your head

. . . won't help in a side collision

. . . I want to be able to dive

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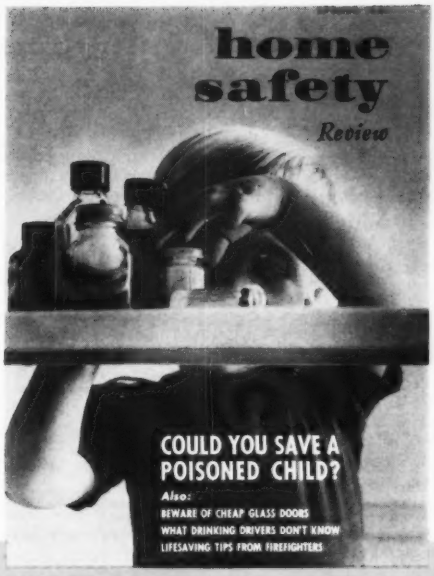

SPRING ISSUE

Hazards of Sliding Glass Doors. Some are now made of such thin, fragile glass that they shatter at the slightest blow, as many unfortunate homeowners have discovered. Solution: shatterproof glass.

What Drinking Drivers Don't Know. The carefree driver who has had just a few drinks is more dangerous than the sodden drunk.

How to Use the Telephone in an Emergency. How to save valuable seconds by knowing who to call, what to say, how the operator can help.

Lifesaving Tips from Firefighters. Firemen point out six vital safety rules: never leave children alone; don't smoke in bed; get out of a burning building immediately; never enter a burning building; don't jump from a window; plan your escape from fire.

Don't Invite Snakebite. How to avoid snakes, what to do if you encounter one, and what to do if you are bitten.

What Would You Do if Your Child Ate Poison? Practical emergency treatment for poisoning, including answers to such questions as: should you give an antidote? should you make the child vomit? should you call the doctor first?

Spring Check-up for Ladders. How to examine your ladder to see if it is safe for use. A few minutes of caution that can avoid serious injury.

PLUS SHORTER FEATURES:

What to Do in Case of a Tornado.
Ten Top Safety Cartoons from the Saturday Evening Post.
Hazards of Using Lacquer Sprays in the Workshop.
Do You Drive Like a Champion?

SCHEDULED FOR SUMMER ISSUE

Exciting New Ways to Teach Your Child to Swim. The fun-way through use of games. Photos and detailed instructions.

Poison the Bugs, Not Yourself. Constantly coming on the market are new pesticides with strange names and ingredients. Some can be dangerous. Here's what you should know to handle them safely.

Scuba Diving: the Fun and the Dangers. This exciting sport that has captured the nation's interest can be hazardous, even for the experienced diver. Safety pointers, especially for the novice.

Are You Emotionally Fit to Drive? Psychologists say your attitudes determine whether or not you're heading for an accident. What are emotional danger signs? How can you spot them and avoid them.

Five Reasons to Beware a Power Mower. These five reasons are five different personal stories. All are tragic, and all concern the effect a power mower accident has had on someone's life.

"I Didn't Know the Gun Was Loaded." So goes the pathetic cry each year of dozens of persons who accidently shoot friends and relatives. The moral: never keep a loaded gun in the house.

PLUS SHORTER FEATURES:

It's Simple to Install Seat Belts.
Know Your Buoys.
What Would You Do in This Emergency?
Poisonous Plants in Your Back Yard.

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by Lois Zearing, Librarian, NSC

Accidents

Chicago's 1960 Traffic Record Shows Gains and Losses. *Chicago Traffic Safety Review.* January-February, 1961, p. 2-3.

Michigan's Death Drivers Escape Penalties. *Traffic Digest and Review.* February, 1961, p. 27-8.

1960—Record-breaking Year in City Traffic. *Chicago Traffic Review.* January-February, 1961, p. 1, 4.

Administration

Traffic Safety Management School. *Traffic Digest and Review.* February, 1961, p. 4-5.

Alcohol

Catching Drunk Drivers Before They Kill You. Edward D. Fales, Jr. *Popular Science Monthly.* p. 59-63, 224, 226, 228.

Automobiles

The Auto Glass Book of Facts. 1960. National Auto and Flat Glass Dealers Association, Suite 407, 1000 Connecticut Ave., Washington 6, D. C.

Conferences

Traffic Engineering Seminar. Governor's Highway Safety Conference, Topeka, Kan. Oct. 24, 1960. 41pp. Traffic and safety department, Kansas State Highway Commission, Topeka, Kan. (Summarization of speeches and discussions.)

Construction

How Topeka Controls Pavement Cuts. *Street Engineering.* March, 1961, p. 12-14.

Drivers and Driving

"Defensive Driving" Idea Not New, But Still Good. *Taxicab Industry/Auto Rental News.* February, 1961, p. 11.

Laws and Rules and Regulations Pertaining to the Operation of Professional (Commercial) Driver Training Schools. 1960. 17pp. National Professional Driver Education Association, 4935 W. Foster Ave., Chicago 30, Ill.

Organization of the Driver License Function. Glenn V. Carmichael. *Traffic Digest and Review.* February, 1961, p. 11-18.

Psychophysical Tests. Their Administration and Interpretation. Lillian C. Schwenk. 34pp. 1961. Driver Education Laboratory, Iowa State University, Ames, Ia. Price 50¢.

Suspension of Driver License Regardless of Court Action. Edward C. Fisher. *Traffic Digest and Review.* February, 1961, p. 10-11, 30.

Exhaust Gas

California Readers' Test of Smog Killers. *Petroleum Week.* Feb. 3, 1961, p. 54-55.

Grade Crossings

ICC Orders Grade Crossing Probe. *Railway Age.* Feb. 20, 1961. p. 14-15.

A report on Evaluating Highway-Railway Grade Crossing Treatments. W. A. McLaughlin. October, 1960. 84pp. Canadian Good Roads Association, 270 MacLaren St., Ottawa 4, Can. (Technical Publication No. 13) Price $1.00.

Guard Railings

California's Newest Guard Railings Make Highways Safer. *Wood Preserving News.* November, 1960, p. 12, 16, 18.

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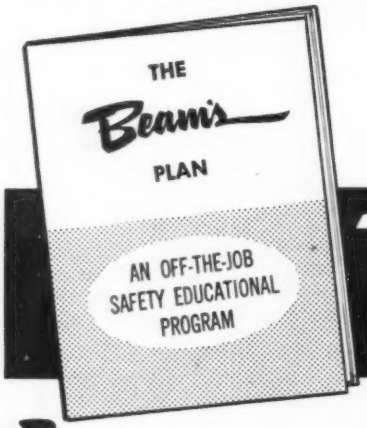

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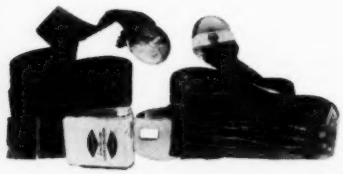

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Traffic Safety

Volume 58 Number 5 May 1961

A NATIONAL SAFETY COUNCIL PUBLICATION

TRAFFIC SAFETY is dedicated to the prevention of traffic accidents through the presentation of objective information and responsible opinion to official agencies, public support groups and the motor transportation industry. The views expressed do not necessarily reflect the beliefs or policies of the National Safety Council, but they are presented in the conviction that the pressing social problem of traffic accidents can best be resolved through freedom of expression and open debate.

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BETWEEN STOPS

THE problem of how to get a motorist to stop has puzzled traffic experts since the time of the Stanley steamer. Ordinarily, you would think that a "Stop" sign or a traffic signal would do the job. Yet, these devices fail to halt the more stubborn drivers.

The railroad crossing gate is a more positive deterrent. Still every day hundreds of motorists zig-zag around these gates to cross the tracks—some for the last time.

It may be that a little lady from Ontario, Canada, has finally come up with a workable system. After trying for some time to get a speed limit sign erected to slow traffic passing the local school, Mrs. Dorothy Harding has threatened to lead her cow across the highway four times a day to protect her small son and his school chums from speeding traffic. "Motorists aren't concerned about hitting kids," she says, "but they think twice before hitting a cow with their precious cars."

FEBRUARY DEATH TOLL TWO PER CENT BELOW 1960

by H. Gene Miller

MOTOR vehicle deaths in February totalled 2,320. This was 2 per cent lower than the February, 1960 total of 2,370 and was the fourth month in succession to show a decrease from the same month of the previous year.

For the first two months of 1961, deaths were down 5 per cent from the same months of 1960. The totals were 4,970 in 1961 compared with 5,250 in 1960, a reduction of 280 deaths. This was the first time in 11 years that the number of deaths in the first two months fell below 5,000, the last year being 1950, when 4,719 persons died. However, it is believed that the severe snowstorms experienced on the Eastern Seaboard in January contributed heavily to this 11 year low.

The 2 per cent decrease registered in February continued a favorable trend that began in November of 1960. With the advent of more favorable driving weather, this trend will face its severest test as a record number of motorists increase their driving activity.

Disabling injuries during the first two months of the year are estimated at about 200,000. These are injuries resulting in disability beyond the day of the accident and do not include minor injuries which undoubtedly total hundreds of thousands more.

March data are not yet available for 1961 to permit computing rate information.

Among 49 states reporting February experience, 25 had fewer deaths than last February, three reported no change, and 21 had increases. For two months 26 states showed decreases, two reported no change, and 21 had increases.

Cities, led by the perfect records of Cleveland, Ohio (876,100) and Washington, D. C. (764,000), showed a 13 per cent reduction in February, according to reports from 752 cities over 10,000 population. For two months, these cities also showed a 13 per cent decrease.

Cities with fewer deaths in February totalled 134, those with no deaths numbered 114 and 504 showed no change (mostly perfect records).

For two months, 183 had decreases while 168 had increases, with 401 showing no change.

In February, 582 of the 752 cities reporting had perfect records. Of these, the three largest were: Cleveland, Ohio (876,100), Washington, D. C. (764,000) and Tampa, Fla. (275,000).

For two months, 468 of the cities still had perfect records. Of these the three largest were: Washington, D. C. (764,000), Hartford, Conn. (162,200) and Bridgeport, Conn. (156,700).

The three leading cities in each population group at the end of Feb-

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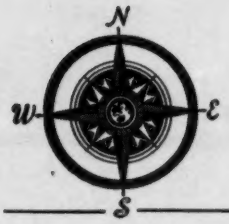
H. Gene Miller is director of the National Safety Council's research and statistics department.

Leading at the End of February

States

Vermont	—82%	Missouri	—16%	Washington, D. C.	—100%	New York, N. Y.	— 36%
Delaware	—69%	Utah	—15%	Charlotte, N. C.	— 91%	Detroit, Mich.	— 36%
Maryland	—49%	South Dakota	—13%	Buffalo, N. Y.	— 88%	Long Beach, Calif.	— 33%
Hawaii	—43%	Indiana	—12%	Richmond, Va.	— 86%	Des Moines, Iowa	— 33%
New Jersey	—40%	Tennessee	—12%	Syracuse, N. Y.	— 80%	San Francisco, Calif.	— 32%
South Carolina	—29%	Virginia	—11%	Kansas City, Mo.	— 78%	Cincinnati, Ohio	— 30%
New York	—26%	Washington	—10%	Cleveland, Ohio	— 71%	Louisville, Ky.	— 25%
Georgia	—25%	Michigan	— 7%	San Antonio, Tex.	— 69%	Norfolk, Va.	— 20%
Kentucky	—25%	North Carolina	— 6%	Akron, Ohio	— 63%	Houston, Tex.	— 19%
Ohio	—22%	Massachusetts	— 3%	Dayton, Ohio	— 60%	San Diego, Calif.	— 15%
New Mexico	—22%	Louisiana	— 3%	Pittsburgh, Pa.	— 58%	Memphis, Tenn.	— 13%
Maine	—20%	Connecticut	— 3%	Mobile, Ala.	— 50%	St. Louis, Mo.	— 7%
Mississippi	—18%	Florida	— 2%	San Jose, Calif.	— 40%	Philadelphia, Pa.	— 4%
				Tampa, Fla.	— 38%		

Cities



Today's Traffic

She's death on deer

Lightning may not strike twice in the same place, but you can never be sure that a lady driver won't. A recent issue of the Ontario Safety League's bulletin tells of a repeat performance by Mrs. Juanita Gallahan of King George, Va. Having struck and killed a deer with her automobile, Mrs. Gallahan returned her damaged vehicle to the garage and hopped into her second car. Everything went fine until another luckless deer crossed the lady's path, and—you guessed it—she bagged him.

Encouragement for dealers

An assist was recently given to driver education by one of the major automobile manufacturers. General Motors has doubled the allowance it makes to dealers who lend cars to high schools for driver training programs. The new allowance of $250 is retroactive to the start of the 1960-61 school year.

One man's safety drive

An effective piece of safety propaganda is being distributed by the 2 x 4 Cafe, Bellingham, Wash.—a favorite stopping place for truck drivers. It's a matchbook cover showing a picture of the owner and his popular dog Zip, who was killed in front of the restaurant by a speeding vehicle. The following message reminds customers of Zip's accident: "Zip lost his life on account of speed. Slow down, it could have been a child."

School safety patrol

Idaho has passed legislation which authorizes school safety patrol programs by statute. An important feature of the bill is the authorization for school districts to purchase life and accident insurance for members of the patrol, administrators and teachers. Ten other states also authorize school safety patrol programs by statute.

A slight miscalculation

Hauled into Waukesha Municipal Court for traveling 111 m.p.h. on Wisconsin's Highway 30, a motorist explained that his speedometer was inaccurate—he thought he was only going 90 m.p.h. Judge Scott Lowry fined him $50.

Don't want business

The City of Montclair, N. J. is issuing 25,000 pocket size leaflets telling citizens how NOT to get a ticket from a Meter Maid. The leaflets—which give such advice as, "Hey, don't park half in one stall, half in another"—were prepared at the request of Mayor George L. Nye, under the direction of Arthur Siegal, town comptroller.

Reckless is right!

Kissing can be an expensive pastime—if you do it while driving. In Southampton, England, a judge called it reckless driving, and fined Michael J. Stone $28 for indulging in same. He also slapped a similar fine on Christina Hicks — the girl in the case — for aiding and abetting Stone.

Test Talk

County-wide operation

Hudson County, N. J., has established a breath testing network and made testing available to all municipalities in the county. Breath testing devices are placed at strategic points in the county, and about 125 trained technicians are available in the county to conduct tests on suspects.

Maybe this will work

Judge P. J. MacDonald, Ottawa, Canada, recently rejected the appeal of a driver who had pleaded guilty to driving while impaired and whose driving permit was suspended for one year. The driver argued he needed his car to continue his work. The Judge, in upholding the suspension, said, "Some means must be found to impress upon offenders the seriousness of this type of offense."

Post mortem program

David D. Furman, New Jersey Attorney General, has reported his state's post mortem alcohol determination program has progressed well. Most of the laboratories in the program have been accredited and a special workshop has been held for technicians to insure uniform procedures.

Progress in Virginia

The Traffic Safety Committee of the State Medical Society of Virginia has recommended the enactment of legislation on "implied consent" for chemical testing of suspects believed to be under the influence of alcohol. The committee has also recommended lowering the present presumptive level of "under the influence" from 0.15 per cent to 0.05 per cent.

Move to reduce level

At its annual meeting in October, 1960, the Committee on Alcohol and Drugs of the National Safety Council advocated a reduction in the blood alcohol level at which drivers are presumed to be under the influence. Legislation on the reduced level, from 0.15 per cent to 0.10 per cent has been passed in North Dakota (see page 19), and has been introduced in Washington.

Quick action upheld

The Iowa Supreme Court upheld a state department of public safety policy which called for the immediate suspension of an operator's license on arrest for driving while under the influence. The court pointed out that the suspension was within the power given to the department, and that due process was certainly served since an opportunity for hearing was granted the driver after suspension and there was still appeal to the courts available to him.

IT'S VEHICLE CHECK TIME

During May and June, the National Safety-Check for Communities will again be conducted in states which do not require periodic motor vehicle inspection by law.

The program is sponsored by the Auto Industries Highway Safety Committee and *Look* Magazine, with the cooperation of the Association of State and Provincial Safety Coordinators.

Objectives of the program are to arouse public awareness of the need to have vehicles safety checked periodically and to provide an opportunity for free vehicle safety checks. Checks will be conducted at community sponsored lanes; in cooperating dealerships, garages and service stations, on military installations; at industrial plants for employes, and in schools and as part of teenage sponsored programs.

Nearly two out of three vehicles in country are not *officially* checked.

The 10 items to be safety checked are brakes, front lights and turn signals, rear lights and turn signals, steering, tires, exhaust system, glass, windshield wipers, rear view mirror, and horn.

Nearly two out of three vehicles registered and operating on streets and highways are not *officially* checked to determine their safe driving condition. Only 18 states require periodic motor vehicle inspection by law. In these states, as many as 50 per cent or more of all vehicles inspected are rejected each year because one or more parts require immediate service attention. One out of six of the more than three million vehicles voluntarily safety-checked during 1960 were in need of safety service to one or more parts affecting safe driving.

Automobile and tire manufacturers are again providing 20 special field representatives to the Auto Industries Highway Safety Committee for the program. These special representatives will work with state and local public officials, citizens' and safety organizations, industrial plants, military installations, and high school groups supporting the annual voluntary safety-check of vehicle condition.

Last year more than three million vehicles were checked at community check lanes in 2,955 programs and dealer service departments.

A new booklet, *Why Motor Vehicle Inspection* has been published by the American Association of Motor Vehicle Administrators and the Auto Industries Highway Safety Committee. It shows the need to adopt official state programs for periodic examination of all vehicles using streets and highways.

The booklet tells that the average death rate in states not now requiring periodic examination of vehicle condition is 13 per cent above the national average of deaths per 100 million vehicle miles of travel. The booklet also points out that areas requiring inspection show significantly lower insurance premium rates for bodily injury and property damage than those without a check on the safe driving condition of motor vehicles.

Some average drivers tell . . .

Why They Don't Wear Seat Belts

by John Naisbitt

THERE was a time when motorists were merely confused about seat belts.

They are still confused, but many now seem to be pretty sure they don't want anything to do with seat belts.

This is at a time when the automobile industry, an industry that ordinarily endeavors to follow America's tastes, has moved ahead of its public by announcing that seat belt anchorage points will be standard equipment in all 1962 models.

This is a milestone in traffic safety and the safety movement must respond to it. It must not be aborted by default.

Well over 95 per cent of the drivers in this country, for one reason or another, refuse to buy and use seat belts —in the face of demonstrable evidence that seat belts save lives and reduce injury dramatically.

The situation recalls other periods in our history when people have resisted innovations that were for their own good: The superstitious resistance to the smallpox vaccine in the first

John Naisbitt is director of public information, National Safety Council.

half of the 19th Century is a good example.

Unlike a vaccine, which is nearly 100 per cent effective, the seat belt does not guarantee complete immunity from injury.

It will not be an easy task to sell the American people on the impressive benefits that seat belts do offer.

To be effective in an education campaign, we must first learn why people resist seat belts so that we can determine what messages will be most effective in persuading them to use seat belts.

Recently some drivers in the Chicago area were interviewed about seat belts. Each interview was conducted by a professional depth interviewer, lasted two to four hours, and was tape recorded.

Slow Warm-up

In some cases it was only after an hour or two that respondents began to articulate some of their strong opinions about seat belts. Some of these opinions will strike safety people as almost unbelieveably uninformed and naive. Some are downright shocking. Nonetheless, they were uttered by otherwise ordinary, normal people who drive cars every day.

These attitudes and opinions can not, of course, be validly projected to represent the population, but it is suggested that within the population some of these notions are more or less widely held.

Excerpts from the tape-recordings have been drawn from interviews with:

Bill, 51, a government examiner
Oliver, 34, a salesman
Jack, 39, a truck driver
Charlie, 41, an office worker
Betty, 46, a real estate agent
Claire, 28, housewife
Kathy, 36, housewife
Susan, 40, housewife

Betty: *I don't like feeling tied down. It feels almost like an electric chair. You know, you feel as if you're sitting down, and, you know, you feel as if there is impending doom.*

The seat belt is here associated with accidents, with death. The seat belt is not thought of as part of the car, as another part of driving. To this driver, using a belt is conceding that an accident is possible—something she is reluctant to admit.

In another part of the interview Betty spells this out.

Betty: *You know, now, something's going to happen. You're going to get into an accident and they're trying to do something that will minimize the injury. This represents tremendous fear. But I think I would possibly react to a stranger offering me a safety belt in his car. I'd feel as if I was dependent on him, that I was, well, I wasn't a free agent, I couldn't move about, or leave the car as easily. I don't know why I feel this, but I do.*

The seat belt is something that is imposed on her, and represents a yielding of control.

Other comments in the interviews also suggest that in some drivers' minds there is something of a notion that they would yield some of the dominance they have over their car if they allowed the car to "strap them in."

Jack: *Nine times out of ten, the driver that got hit whereby it was a front impact, which are rarer than sides and rears, he goes forward and he hits the steering wheel with his face, and the safety belt isn't a factor, because that goes around the waist and it still don't stop him from hitting that wheel. So, I mean, there was no sense in putting them in. It's strictly for the safety of somebody next to the driver.*

People tend to relate the value of seat belts with front impacts—and then suggest that in accidents front impacts are less frequent than side and rear impacts. A study by the Indiana State Police reports that front impacts (head-on and at-front angles) constitute 69 per cent of accidents. The National Safety Council's estimates on front impacts are substantially lower.

The criticism that seat belts target the head on the steering wheel is fairly common — and possibly true, if the driver is 4′ 8″ or under. Otherwise, it is the driver's chest and arms that hit the steering wheel on impact, but they hit with a great deal less force under the restraint of a seat belt. The suspicion here is that such attitudes as "It's strictly for the safety of somebody next to the driver," are another way of saying, "It's not for me." Susan makes the same point.

Susan: *The safety belt is of more advantage to the passenger than it is to the driver on these short stops because they have nothing to brace against and that holds them, while the driver is holding onto the wheel.*

This is probably true to a certain extent in connection with slow-speed panic stops. But to generalize from this specific circumstance is not valid.

Bill: *The safety belt factor comes in where you have to jam on your brakes in an awful hurry. Your own brakes, not anybody else's. So it would seem to me that if a proper distance is kept you don't need them.*

Ignoring the many other possibilities of involvement, Bill is saying that he will never get into an accident and therefore doesn't need seat belts. Claire said almost the same thing.

Claire: *When I'm driving I wouldn't need a seat belt because I think I allow enough time and room for this sort of thing.*

Charlie: *Now, there's pros and cons to this safety belt bit, and the only place where I can feel it is advantageous if you have a couple of children in the car and you stop short, and they're strapped in, this will prevent them from banging their heads up against either the back of the front seat or the dash. This to me is what the safety belt is for, but with a grown-up I don't see where it's going to prevent them from doing this. This is going to hold them so they make sure that they hit their head on the front seat or on the dashboard.*

He Forgot Something

Charlie is right about the kids, but he is on shaky ground in his implication that adults in similar circumstances would be better off without seat belts. While under certain conditions it is possible for a belted person to hit the back of the front seat or the dashboard, it is unlikely. A belted person on impact tends to go forward and *upward*, the body taking the shape of a "V." Should a person wearing a belt hit the seat or dash, he would hit it with much less force than the unbelted person. If the deceleration developed were twice the force of gravity, for example, the belt would hold the resulting 400 pounds of the forward impact of a man like Charlie who weighs about 200 pounds. This is the force developed if Charlie were traveling only 15 m.p.h. and stopped within four feet.

Bill: *I don't think it* (seat belt)

would be any ally of mine. Perhaps at a given time, that I may want to avoid, I may want to get over on the other seat for some reason or other. I mean, this can happen, that you're driving down the road and you're, something is coming at you and you want to dive, and you're not diving any place with that safety belt on.

There's no hiding place down there. If you are in the back seat, under certain circumstances, it may make sense to get down—if it's possible at all—but only if the car stays upright and at the risk of hitting your head against the side of the car on impact.

Oliver wanted to dive, too.

Oliver: *Well, now, here's the thing, here's an example. Now, you've seen these big trucks with these rods of steel coming out the back end of them, something happens and you can't stop in time, that thing is coming right through that windshield. That's one time when you want to dive.*

The possibility of this happening is fairly remote, and if it did, there is torso freedom wearing a seat belt, or the driver could duck. Everyone is looking for a panacea, apparently, and will subject the seat belt to outrageous circumstances: If the seat belt doesn't help him in all circumstances, he doesn't want it. "I know a guy who had a safety belt on and still got killed. He was doing about 90 m.p.h. . . ."

More diving and some jumping:

Bill: *To be able to dive, I mean, to get down, I mean, if you can get underneath your dashboard, I mean, at least get away from this impact, the direct impact, I think that your chances are going to be a little better to take the dive. It certainly isn't going to be any factor in the side collision. I mean, like I say, if you're strapped in that driver's seat and there's a car coming at you from the driver's side, and you can't avoid him, and, as I say, you want to jump: you're not jumping anywhere* (with a seat belt on).

Perhaps the greatest value of a seat belt is the prevention of ejection.

Jumping is related to being "thrown clear":

Jack: *I've seen where a party got thrown clear many a time in an accident, where the doors sprung open and a party was thrown clear of a car in an accident and just got minor bruises, whereby if they would have stayed in there, they would have been crushed.*

The findings of Cornell University's Automotive Crash Injury Research indicate that the risk of serious injury or death is five times greater if ejected than if the occupant stays inside the car.

The National Safety Council's study on the effects of the CBS Reports program, "The Great Holiday Massacre," reported that some people view safety belts as dangerous because they threaten to "trap" the victim within the car. Such fears reflect a magical hope on the part of this group to be "thrown clear" of the car in case of an accident or a wish for some grace which would allow them to escape the car "in the nick of time." The safety belt denies these instincts for escape.

Afraid of Fast Stops

Charlie: *Now, if you're held still, that is, more or less still, and you're given a terrific jerk, which happens when you've stopped suddenly, or hit something suddenly, then of course there can be the snapping of the neck: snap your neck, you're dead. This to me is the disadvantage of a belt.*

Most so-called whiplashes occur when a car that is not moving is hit from the rear, and the bulk of whiplashes are cracks in the vertebrae and are not fatal. Because of the torso freedom, there is no reason why belted motorists would experience more whiplash injuries than non-belted motorists.

Betty: *I think most fatal accidents, almost all fatal accidents, happen on the highway at high speeds.*

Kathy: *I don't have safety belts in my car because I don't travel at such high speeds.*

According to the National Safety Council, about half of fatal accidents occur at speeds under 40 m.p.h. People apparently do not realize the force of impact at even very slow speeds. To take an example, if a 200 pound man traveling in a car at 20 m.p.h. hits an immovable object, the developed forward thrust of his body is equivalent to his falling out of a one and a half story window.

Oliver: *I don't think she* (his wife) *would feel it was a necessary thing for the simple reason that she very rarely gets over 20, 25 m.p.h., and she drives around town all the time, and it's very difficult to get into any kind of head-on collision of great importance that it would necessitate a safety belt.*

The National Safety Council says that 65 per cent of fatal accidents and 80 per cent of all accidents occur within 25 miles of the homes of those involved. Oliver suggests that seat belts are not necessary if you drive slowly, close to home, and don't get involved in a head-on accident of any great importance. Within these limits that he draws a great many accidents do occur, some of them fatal.

Bill: *Well, they're a bother. I mean, I get in and out of a car, like a truck driver, 25, 30 times a day, I mean. I'll open the door, slam the door, I mean. I'm a big fellow, and the cars are low enough today without having to fool around with these straps.*

A seat belt takes two seconds to buckle and a half second to unbuckle. "Strap" is an unloved word and is used quite frequently in connection with seat belts.

Charlie: *Well, to me, I just can't see kids being strapped down like that. It just isn't a thing for them to do. It's like taking a child that doesn't know why they're sitting in the corner and sit them there for a half hour. Then, if they're of proper spirit and thought and idea, they won't sit there. If they've been buffaloed and hoodwinked and they're a child without any spirit, yes, they'll sit there.*

Isn't Charlie really talking about himself and about the kinds of people he thinks use seat belts?

Here are some explicit comments about the kind of person those interviewed thought the seat belt user to be:

Betty: *It was just last Friday we were going out to dinner and some young man mentioned that he had bought safety belts for his car and I think everybody was a little taken back. I think we thought he was a little neurotic.*

Oliver: *Then you have this type of individual who is the perfectionist. He does everything according to the rules. He puts the safety belt on. He buckles it even before he even starts the car, probably, and all that sort of thing. You'll probably find that, probably with, well, I wouldn't be surprised, from middle-aged or older people who are safety conscious, see, and they've*

just been sold a bill of goods on the seat belts.

Jack: *Yes, he* (a seat belt user he knows) *can't do anything half way. I mean it's got to be 100 per cent. He believes in going camping and somebody else just buys a sleeping bag, but no, it's got to be tested and approved. He's got one now set for 35 below, but if it looks like rain he won't go out. He wasn't going to get his new tent wet.*

To be regarded in this way might be embarrassing. Betty said as much.

Betty: *Having a 16 year old boy, I think he would be a little embarrassed if he entered the car with his friends and had to make use of a safety belt. He might be embarrassed.*

He might be killed.

Bill: *I feel that the rear is the place where the kids are the most and they are the ones that are horsing around and doing the things they're not supposed to do, and of course they're relaxed, and, of course, they say when you're relaxed, you can usually walk away from most of those. There's a million factors in this thing that no safety belt company's going to sell me on the idea that they're going to save my life.*

The G force is no respecter of a person's state of relaxation or tenseness. You can be as relaxed as wet spaghetti: it still applies.

Can't Fool Him

Bill is not going to be sold on something that may save his life. He thinks people who try are suspect:

Bill: *I wouldn't even venture to guess as to how many people have been saved and how many people have been killed because of them, because I think that the people that are manufacturing safety belts today have as big a lobby and as big an advertising campaign going on as anyone else has, not to save your life, but to sell belts.*

In investigations of 699 accidents involving a driver wearing a seat belt, California Highway Patrolmen reported that in their opinion injury had been prevented among 42.2 per cent, mitigated among 16.2 per cent, death prevented among 4.7 per cent (no effect for 36.5 per cent). They thought the seat belt aggravated injury among .4 per cent, and caused no deaths. Even allowing for their seat belt bias, this is a remarkable testimonial for seat belts.

Commercial seat belt advertising is practically non-existent. Most manufacturers have been losing money on their seat belt line, but many continue to manufacture them because they believe in them. Some manufacturers have become discouraged and stopped making them.

Charlie also thinks people are sometimes taken in:

Charlie: *One of these fellows I know that has made a point to have safety belts put into his car wouldn't think of using them. Somebody sold him a bill of goods that it was a safety feature.*

And, by George, nobody is going to sell Charlie a bill of goods.

Susan: *If you're strapped down, for instance, and you have an accident and the car catches fire, and you're knocked out, you really don't have too much of a chance.*

Susan has us there. Under these circumstances (again, people tend to submit seat belts to every conceivable circumstance) a seat belt wouldn't help, nor would the absence of one. In cases of fire or submersion, it is more likely that a belt will mitigate the impact which might otherwise knock a person out. In any event, the Cornell studies report that the combined total of fire and submersion occurs in only a fraction of one per cent of accidents.

Oliver: *It's a game. It's like any gamble that you take. Even though it's a safety factor, it's still a gamble, and unless you know the honest statistics as to which way your odds are the best, you can't really say whether seat belts are or are not odds in my favor or against me.*

The accident comparison studies at Cornell University and the lifesize-dummy experiments conducted by the University of California and automobile manufacturers add up to this: Your chances of being killed or seriously injured in an accident will be reduced by more than one-third if you are wearing a seat belt.

What would convince those interviewed that seat belts are in their own best interests? This is what they say:

Kathy: *If you told me, say, of having an experience where they helped*

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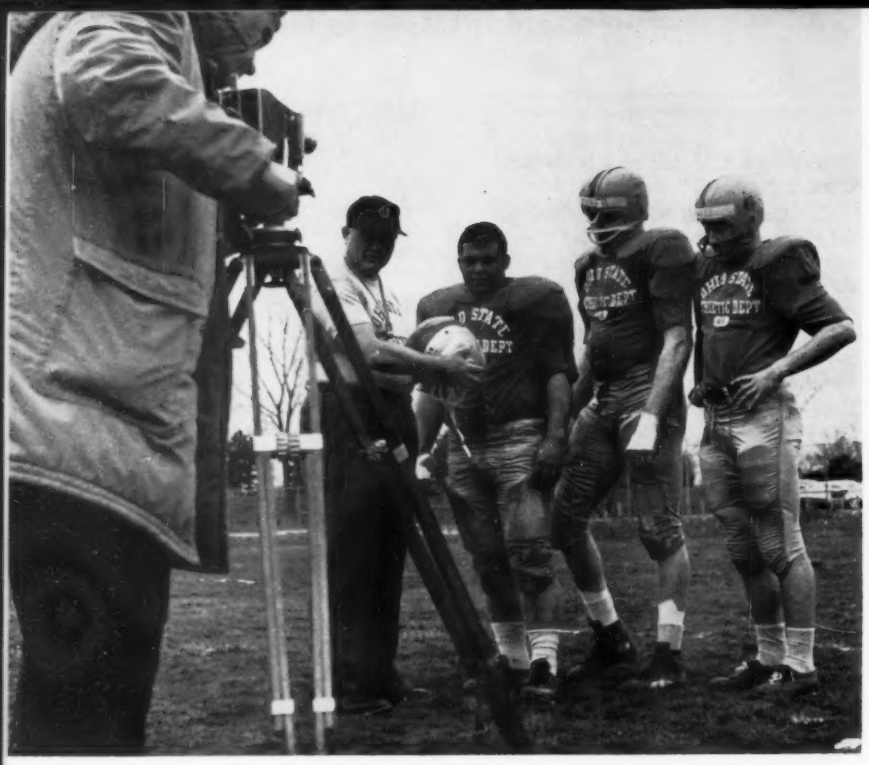
WHAT THEY SAY . . .

"I want to be able to dive . . ."

"People get thrown clear . . ."

"Relax and you won't get hurt . . ."

"Belt wearers are a bit neurotic..."



OHIO'S ALL-STAR SAFETY TEAM

by Grant Keys

Dynamic all-sport, all-season TV-spot film series "sells" safety tips

THE Buckeye Safety Parade began its line of march at a 4-H meeting, and—through the cooperation of the Ohio State University, its Agricultural Extension Service and the Ohio Department of Highway Safety—continues past the "reviewing stand" with safety banners flying—to the delight of TV sports fans of all ages and Ohio safety leaders.

The Parade, 11 short sound-on-film TV spot announcements featuring well-known Ohio State University coaches and athletes, developed out of a search for a sustained motivational safety approach to Ohio's teenagers. W. E. (Bill) Stuckey, extension specialist in safety at Ohio State University's Agricultural Extension Service, and J. A. Wolfe, executive assistant to the director of the Ohio Department of Highway Safety, have teamed for years to conduct safety rallies for Ohio youth leaders—at school assemblies, 4-H and Future Farmer meetings, and a variety of cook-outs and campings.

Both Stuckey and Wolfe saw the void in persuasive tools to influence young people toward positive safety attitudes. They discussed the idea of sports personality television testimonials one evening last year during the return drive to Columbus from a youth meeting. Stuckey (current chairman of Ohio's statewide non-partisan Governor's Traffic Safety Committee) approached Director W. B. Wood of the Ohio Agricultural Extension Service, and Wolfe related the suggestion to us at the highway safety department.

Both staffs agreed immediately and contacted Ohio State University's athletic director, Richard Larkins, for advice, consent and athletic talent. The university seconded the idea and made its film production facilities available, with the extension service and our department splitting the production costs.

Ohio Department of Highway Safety writers executed the shooting scripts and the extension service's Jim Chapman narrated the film segments. The "casts" represent a "golden age" of sports. Swimming films starred Mike Peppe, Ohio State University's famed coach, and national diving champion Don Harper. The track spots featured Ohio State University and 1960 Olympic track coach Larry Snyder, and Olympic gold medal hurdler Glen Davis.

Ohio State University's head football coach, Woody Hayes, provided enthusiastic cooperation in a spring "shooting" session with quarterback Tom Matte, giant tackle Jim Tyrer and line backer-captain Mike Ingram (these three players subsequently won "all-American" nomination during the 1960 season). Basketball coach Fred Taylor joined the act with center Jerry Lucas and forward John Havlicek, pausing long enough to film their sequence before departing to nail down the 1960 national championship.

Grant Keys is director, Ohio Department of Highway Safety.

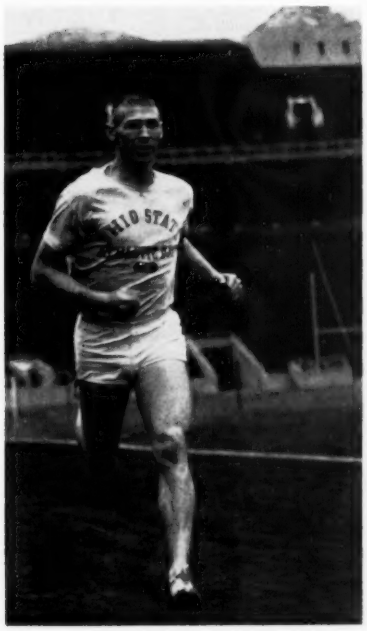
Typical messages: All-American basketball star Lucas, spectacular on the court and straight-A in class, suggests that "showing off in traffic is kid stuff." Coach Hayes stresses learning the fundamental safety rules "because when you get cute, you get beat!"

Ohio's television stations warmly received the series—hand-delivered to program managers by Ohio Department of Highway Safety field representatives. The stations program the spots in every possible time segment recognizing an appeal to age groups beyond the teens. In less than one year the stations contributed an estimated 20,000 showings of films in this one series!

Safety education groups throughout the country continue to request screening copies of the series with a view to adapting the idea to local safety problems and athletic talent. During 1961 Ohio will convert the series to disc form for added impact with the state's 100-plus radio stations.

Actual costs thus far? Just raw film, developing and printing. Teamwork provided the talent free—to help upgrade Ohio's farm, home and traffic safety experience with the Buckeye Safety Parade.

Ohio State cameraman shoots miler Bob McEarchon receiving instructions for safety film role from track coach and Olympic coach Larry Snyder. McEarchon later was killed in December 1960 in United-TWA air disaster.



Glen Davis, OSU grad and Olympic hurdler, warms up for TV film spot.

Shooting stops and W. E. (Bill) Stuckey (left), chairman of the Ohio Governor's Traffic Safety Committee, listens in as film's narrator Jim Chapman goes over scene with OSU's head football coach Woody Hayes.

ROAD SAFETY EXPERTS MEET AT NICE, FRANCE

by Fletcher N. Platt

MORE than 300 experts in many fields representing some 39 countries attended the 1960 International Road Safety Congress. At the conferences great emphasis was placed upon the educational and research aspects of road safety. Special reports were made on motor vehicle inspection, use of seat belts and assistance to victims of road accidents.

The congress agenda concentrated on three themes: the first concerned the comparative merits of short as opposed to long-term safety campaigns; the second, concerned with the education of road users, was divided into separate sections on beginner training, refresher courses and preparation of driving teachers; the third theme covered several specialized topics in the field of traffic accidents, including accident proneness and motivation research.

Several very interesting displays, exhibits and demonstrations were presented, including a school for proficient drivers, road tests for children (using model cars), examples of mobile inspection vehicles, and types of emergency vehicles used by several countries.

Advance reports on the entire program in either French or English were given to each participant. The procedure followed was for a general reporter to summarize the papers of the several expert contributors on each theme, and to add his own views as well. This served to open the discussion. Special chairmen then guided the contributions and exchanges on each particular theme.

The individual papers submitted on the three themes were most provocative. The complete transcript of the proceedings is recommended to anyone desiring to enlarge his background in the area of traffic safety programs. Copies are available from the World Touring and Automobile Organization, 32 Chesham Place, London, S.W. 1, England.

In retrospect, my over-all impression

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is one of great respect for the excellence of the technical presentations as well as for the background of the many contributors. The opportunity to meet and exchange ideas and concepts with these outstanding experts from many parts of the world was a stimulating and memorable experience.

It is my belief that we in the United States can learn a great deal from our contacts with traffic safety, enforcement and psychological leaders of other countries. An interchange of techniques through an international meeting of the kind held in Nice can also serve as one wonderful way to improve relations between nations.

The Congress was convened and organized by the World Touring and Automobile Organization (OTA) in cooperation with the International Federation of Senior Police Officers (IFSPO) and the Prevention Routiere Internationale (PRI).

The World Touring and Automobile Organization groups together the national motoring bodies of the world. Its members in North America include the American Automobile Association, the American Automobile Touring Alliance and the Canadian Automobile Association.

The procedures and programs as they are being carried on in Europe in the traffic safety field can be recommended for careful study in North America. The sponsors of this Congress can well be proud of the results achieved. The next one will probably be held in 1962, and details may be secured from the OTA.

Brief excerpts of the papers presented at the congress follow.

EXCERPTS FROM THE CONFERENCE

Road Safety Propaganda Campaign

R. Stoney—Great Britain—In Great Britain we have always favored the idea of long-term road safety campaigns at national level as distinct from that of a national road safety day or week.

As for the scope and purpose of our campaigns, we always try to ensure that there is something in each of them for everybody. Thus, in a winter campaign dealing with poor visibility due to darkness and fog, the propaganda is designed not solely for road users on wheels but also for pedestrians. We aim to make each road user see the difficulties of others and thus be in a better position to cooperate in preventing accidents.

When we compare our ratio with that of the U.S.A. and with heavily motorized European countries we find that only Belgium and Norway have a better record to show and some indeed are twice as bad as we.

R. Pansard—France—Depending on the type of public for which the propaganda campaign is intended, two different possibilities may exist:

a) The public is receptive, it feels a real need, even a desire.

b) The need is lacking and must be aroused, and the public must be enticed, in progressive stages, towards conscious realization.

In the first case, we would adopt a short-term campaign, and in the second, a long-term campaign.

G. Munsch—Germany—Considered from the psychological aspect, road safety propaganda makes the mistake of not taking the true mentality of man as a road user sufficiently into account. It is a fact that those responsible for such propaganda frequently ascribe to the road user faculties and interests, as well as faults, which in reality are non-existent. One proceeds from the unfounded presupposition that for the most part traffic functions according to written regulations and laws, that all these regulations and laws are psychologically correct, that man can always observe them if he only has the will to do so, and that man behaves in exactly the same manner in traffic as he does in other spheres of life.

. . . safety is not from the outset a value which acts as the direct stimulus to man's egoisms. It is only the recurrence of real and serious experiences of danger that causes his consciousness of the value to develop more and more.

. . . road safety propaganda must first rid itself of the illusion that it is possible to transmit the worries of the traffic organizers directly to the road users simply by demanding in general terms and at repeated intervals that road safety should be improved.

Education of Road Users

G. Vallat—president, International Commission on Driving Tests—The test is everywhere divided into two parts: (1) Theoretical questions on road rules, and on signs and signals; (2) A practical test during which the driver must demonstrate his capacity to handle the vehicle and his knowledge of traffic rules. The differences occur principally in the details.

In four countries: England, France, Germany and Italy, nearly 5 million candidates are examined each year, producing 3,500,000 drivers of every category.

It is significant that the lowest percentages (or failures) occur in countries where driving instruction is controlled: as in Germany with only 18 per cent; while in England, which has no control, proportion of failures reaches 52 per cent. The tests (theory and practice) last from an hour in Switzerland to 30 minutes in the Netherlands, Norway, Spain and Sweden.

. . . it has been noted that certain drivers of long standing are surprisingly ignorant of existing regulations, at least in their up-to-date form, while others suffer from physical deficiencies resulting from age, illness or accidents. For this reason, certain countries have instituted a periodic renewal of driving permits: in Switzerland every year, in England every three years, in the Netherlands, Norway and Spain every five years. The practical solution to these problems seems limited and far distant.

M. Souaille—France—The great majority (of safety activities) deal with the potential risk (to the driver) by trying to reduce the number of human errors, faults and the technical and physical shortcomings. In short, if human errors or shortcomings are at the origin of almost all accidents, almost all risks resulting therefrom could be drastically minimized as to their consequences. This is what the French method seeks to achieve. The method is based upon the results of observations of 4,000 drivers over a three year period. Its principal objective is to determine the practical relationships between cause and effect and of the quicker way of explaining . . . it to drivers.

If the driver was aware of the elementary laws of dynamics, one might expect an improved conditioning of his reflexes. These dynamic forces are few in number: centrifugal, centripetal, inertia, and the characteristics of their application to motor vehicles are easily discerned: distortion of the suspension and tires, lateral and longitudi-

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The Congress meetings were held in the Palais de la Mediterranee, the world famous casino in Nice. The building in its glamorous surroundings with its wide marble stairways and huge lobbies seemed incongruously majestic as the site of prosaic technical discussions. Bikinis along the beach may have caused some temporary cases of tunnel vision, but interest in the Congress was so high that few representatives missed any sessions. Participants were treated to many courtesies by the Prevention Routiere International and the Automobile Club de France and the Touring Club de France.

THE LEGISLATIVE HOPPER

A roundup of significant traffic safety legislation

Driver Education and Improvement Schools

New Bills Introduced

Idaho—H. 221—provides for establishment of driver training courses in public and private schools.

Maine—H. 735—authorizes schools to contract for driver education courses.

Minnesota — H. 318 — requires driver training courses in secondary schools and denies license to person under 18 who has not completed such courses.

New Mexico—S. 182—prohibits offering classroom or behind-the-wheel driver training in public schools.

Texas—H. 234— provides for system of driver training in public schools.

Utah — H. 194 — permits students enrolled in private schools to enroll in public schools for driver education. H. 222—requires local school districts to conduct driver education classes.

Action and Additional Information

Arkansas — S. 158 — encourages school districts to establish driver education programs—passed both Houses.

Indiana—S. 383—provides for state regulation of private driver training schools —passed Senate.

Montana — S. 197 — requires in-class driver training in secondary schools — killed, Senate.

Wisconsin—H. 286—authorizes Department of Law Enforcement to fix minimum standards for driver training courses for students between ages 14 and 18 attending public and private schools—passed House.

Juvenile Drivers

New Bills Introduced

California — S. 622 — provides special traffic training for persons under age 18 cited for violating traffic laws.

Connecticut — H. 3964 — prohibits person under 18 from driving at night after warning or conviction of moving violation.

Illinois — H. 279 — requires revocation of minor driver license upon conviction of traffic violation resulting in bodily injury.

Indiana—H. 551—prohibits person under age 18 from driving between 12:30 a.m. and 6 a.m.

Massachusetts—S. 475—prohibits issuance of driver license to person under 18 who has not completed driver training course.

Minnesota — H. 443 — raises minimum age for issuance of driver license from 15 to 16.

Missouri—S. 23—raises driver license age to 18 for unrestricted licenses and 16 if accompanied by parents. H. 68—requires parental permission before drivers-license could be issued to person between 16 and 18 years of age.

New Jersey—HCRes. 34—requests revocation of driver license and reciprocal privileges of minors convicted of vehicle violation after consuming alcoholic beverage.

New York—H. 1064—prohibits issuance of driver license to person under 21 who has not completed driver education course.

Ohio—H. 539—fixes age 16 as minimum driver license age.

Oklahoma—H. 816—repeals authority for issuance of driver license to person under age 15½.

South Dakota—H. 768—prohibits minors from driving between midnight and 5 a.m.

Utah — H. 223 — prohibits issuance of driver license to person under age 18 who has not completed driver education course.

Washington—S. 351—fixes age 18 as minimum driver license age.

Action and Additional Information

Colorado—H. 3—permits issuance of instruction permits to minors enrolled in driver education course — passed both Houses.

Idaho—H. 10—repeals authority for issuance of restricted driver license at age 14—passed both Houses.

Iowa — H. 41 — prohibits issuance of driver license to person under 18 who has not completed driver education course—passed House.

Maryland—H. 336—requires revocation of driver license for minor having two additional convictions after having received two prior convictions — passed House.

North Dakota—H. 682—prohibits issuance of driver license to minor unless proof of financial responsibility is shown —killed House.

Vermont—H. 54—requires parent to accompany junior driver between hours of 9 p.m. and 6 a.m.—killed House.

Executive Action

South Dakota—S. 12—amends provisions relative to traffic violations for children under 18—approved.

Radar—Speed Measuring Devices

New Bills Introduced

New York—H. 3067—prohibits admission of radar information in speed cases unless warning signs have been posted.

Washington—H. 687—provides for use of radar in enforcing speed laws.

Motor Scooters—Motorcycles

New Bills Introduced

Arkansas — H. 333 — permits cities to license bicycle and motor scooter operators.

Action and Additional Information

Arizona—H. 6—repeals section relative driving of motor scooters by minors—passed House.

Seat Belts

New Bills Introduced

Connecticut—S. 1082—requires installation of seat belts.

Illinois—H. 287—requires installation of seat belts in front seat of all new cars.

Iowa—H. 325—requires safety belts on vehicles sold after December 31, 1961.

Minnesota—H. 366—requires equipping school buses with seat belts. H. 456 & S. 408 — require new vehicles to be equipped with seat belts for at least two front seat occupants.

New York—H. 2733—requires vehicles manufactured after January 1, 1963, to be equipped with attachments for seat belts. H. 3091—prohibits operation of vehicle registered after January 1, 1963, unless equipped with seat belts for all seats; exempts for-hire passenger vehicles.

Ohio—S. 198—requires seat belts in front seats of passenger cars sold in state after January 1, 1962. H. 449—requires seat belts on passenger cars after January 1, 1963.

Action and Additional Information

Indiana—H. 20—requires seat belts on new automobiles beginning with 1962 model year—passed House.

Massachusetts — S. 204 — provides for study of advisability of using seat belts—killed Senate.

North Dakota—H. 895—requires that new cars be equipped with seat belts—killed House.

Chemical Tests—Drunk Driving—Narcotic Drugs

New Bills Introduced

Alaska—H. 107—provides for chemical tests in drunk driving cases.

California—S. 605—relates to operating vehicles while under influence of dangerous drug or other narcotic drug.

Colorado—H. 294—requires chemical tests of driver suspected of drunk driving.

Illinois—H. 210—provides for compulsory chemical tests of person accused of drunk driving and permits revocation of driver license for refusal to submit to test.

Indiana—H. 365—adopts implied consent law for person suspected of drunk driving effective September 1, 1961.

Minnesota—H. 330 & S. 327—requires consent to chemical tests as condition to operating a vehicle. S. 536—increases penalties for drunk driving and prohibits issuance of driver license to person under age 18.

Missouri—S. 92—provides for use of chemical tests for determination of the alcoholic content of the blood of a person arrested for drunk driving; provides for consent by drivers to such tests; and provides for suspension of driver license for refusal to submit to such test.

New Hampshire—H. 131—provides for chemical tests in drunk driving cases.

Pennsylvania — S. 132 — authorizes use of chemical tests in drunk driving cases, suspension of driver license for failure to submit to tests and makes results of tests admissible in evidence.

South Dakota—H. 911—relates to use of chemical tests in drunk driving cases.

Tennessee—S. 143—adopts an implied consent law for drunk driving cases.

Texas—H. 459—fixes penalty for conviction of three or more charges of drunk driving. H. 577—provides for implied consent law in drunk driving cases.

Washington—H. 330—provides for one year driver license suspension for first offense of drunk driving. S. 313—provides for tests in drunk driving cases.

West Virginia—H. 251—provides for chemical tests of motorists accused of driving under influence of alcohol or drugs.

Action and Additional Information

Arkansas—S. 225—provides for chemical tests in drunk driving cases—passed Senate.

Colorado—S. 63—provides that submission to blood test in drunk driving cases shall be at discretion of arresting officer —passed Senate.

Idaho—H. 170—provides penalties for refusal to submit to drunk driving chemical tests. H. 67—requires revocation of nonresident operating privilege for drunk driving conviction—both passed House.

Kansas—H. 87—makes it unlawful for person under influence of liquor or drugs to drive a vehicle—passed House.

Massachusetts — H. 659 — provides for license revocation for person who has had three or more drunk driving convictions—reported to next annual session in House.

Montana—H. 41—enacts implied consent laws for drunk driving — passed House. H. 97—provides for chemical tests in drunk driving cases—passed both Houses. H. 99—establishes periods of suspension and revocation of driver license for driving under influence of liquor or drugs—passed both Houses.

North Dakota—S. 89—provides that arresting officer may determine which body fluids are to be used in tests for intoxication—passed Senate. H. 651—provides 30-day mandatory suspension of driver license on first conviction of drunk driving—indefinitely postponed House.

Executive Action

Arkansas—H. 352—relates to operating of vehicles by narcotic addicts—approved.

South Dakota—S. 13—fixes penalties for driving while under influence of liquor or narcotic drugs—approved.

Tennessee—H. 190—increases penalty for second and third offense of drunk driving. H. 229—makes drunk driving penalty apply to driving under influence of drugs that affect central nervous system—both approved.

Wyoming—H. 50—amends law prohibiting driving while under influence of liquor or narcotic drugs—approved.

Miscellaneous

New Bills Introduced

California — H. 1731 — requires pedestrian on roadway to yield right-of-way to vehicles.

Illinois — S. 119 — requires driver following another vehicle to dim headlights.

Maine—H. 1046—provides for special identification stickers for handicapped drivers.

Minnesota—H. 409—deletes language permitting emergency vehicles to go wrong way on one-way street.

Nevada—H. 144—requires distinctive marking of vehicles carrying explosives.

Pennsylvania—H. 324—prohibits passing near schools.

Utah—H. 159—amends definitions in motor-vehicle laws; amends traffic regulations; bars confusing flashing lights along roadways; requires alternately flashing red lights on school buses; requires clearance lamps on buses, trucks or trailers wider than 80 inches; regulates design and installation of seat belts; requires safety chains on trailers except pole trailers and fifth wheel-type semi-trailers.

Action and Additional Information

Massachusetts—H. 1317—directs Public Works Department to erect cross on state highways where fatality has occurred—withdrawn, House.

New York—H. 517—repeals provision that vehicle approaching intersection shall yield right-of-way—passed House.

Oregon—H. 1029—relates to establishing safety signals and other devices at highway-railroad crossings—passed House.

Executive Action

Massachusetts — H. 458 — further protects blind pedestrians—approved.

Tennessee—H. 54—makes it unlawful to cut fence or otherwise make entrance to controlled-access highways—approved.

Turn Page

A North Dakota First

North Dakota has established 0.10 per cent blood alcohol as the presumptive level at which drivers are believed to be under the influence of alcohol.

The state, acting during its legislative session in March, thus became the first state to enact into law the recommendation of the National Safety Council's Committee on Alcohol and Drugs and other national organizations. Existing legislation in 32 states designates the 0.15 per cent level as the presumptive level over which all drivers can be presumed generally impaired. Seventeen states have no chemical test legislation whatever.

During the March session, North Dakota's chemical test law was amended to include the provision that an arresting officer shall determine which of the tests for body fluids or breath shall be used.

In addition, a section on liability was added. This section provides that a physician, nurse, or technician who draws blood at the request of an officer will not be liable for damages in a civil action in such case, except for gross negligence.

Hopper

From Page 19

Safety Equipment

New Bills Introduced

Arizona — H. 163 — requires that all school buses be equipped with independent auxiliary emergency braking system.

California—H. 1619—prohibits driving of vehicle with obstructed windshields.

Indiana — H. 408 — specifies type of front and rear bumpers required on vehicles.

Kansas—H. 181—requires certain vehicles to be equipped with safety glass wherever glass is used in partitions, doors, windows and windshields, and requires same as replacement glass.

Maryland—H. 314 & S. 280—requires all new vehicles registered after June 1, 1961 to have turn signals. H. 396—prohibits opening doors of vehicle on side next to traffic.

New York—S. 2750 & H. 3984—requires vehicles manufactured after January 1, 1963 to have laminated safety glass in doors, windows and windshields if used as for-hire passenger carrier or school bus if registered in state.

Washington—H. 322—amends vehicle safety glass requirements.

Action and Additional Information

Colorado—S. 74—requires safety chains or cables in towing of motor vehicles; exempts fifth wheel type semi-trailer—passed both Houses.

Minnesota—H. 237—prohibits driving of farm equipment on trunk highways without warning flag—passed House.

North Dakota—S. 180—requires cars manufactured after January 1, 1962 to have turn signals in good working order —passed both Houses. H. 912—requires that all new cars be equipped with fire extinguishers—indefinitely postponed House.

Utah—H. 57—regulates quality of vehicle brake fluids—passed House.

Speed Limits

New Bills Introduced

Indiana—H. 298—fixes 45 m.p.h. speed limit for vehicles hauling other vehicles and exempts tractor trailer units.

Iowa—S. 201—fixes 60 m.p.h. truck speed limit.

Michigan—H. 39—fixes 65 m.p.h. speed limit on divided highways.

Minnesota—H. 647—requires that vehicles driven at speed of 20 m.p.h. or less be driven so as not to impede traffic and, if possible, on road shoulders.

Nevada — H. 87 — restricts speed of emergency vehicles in cities.

Pennsylvania—H. 219—fixes speed limit for areas near playgrounds.

Utah—S. 153—amends basic speed law from "prima facie" type to "maximum" type, in conformity with Uniform Vehicle Code and raises maximum speed limits to 65 m.p.h. daytime, 60 m.p.h. nighttime, and 70 m.p.h. on Interstate System.

Action and Additional Information

Georgia—H. 104—prohibits racing on public highways—passed House.

Indiana—H. 284—fixes 40 m.p.h. prima facie speed limit on unimproved highways—passed House.

Michigan—H. 9—fixes 65 m.p.h. speed limit at night and 75 m.p.h. during day on controlled-access highways — passed House.

Montana—H. 59—fixes 70 m.p.h. daytime speed limit—passed House.

North Dakota—H. 660—provides maximum speed limits of 70 m.p.h. during day and 60 m.p.h. at night on Interstate System and 65 and 55 on other highways—indefinitely postponed, House. S. 81—amends speed limits to require driving in careful manner, rather than at reasonable speed—passed both Houses.

Executive Action

Tennessee — H. 164 — permits school buses to travel at 50 m.p.h. on trips other than to and from school—approved.

Driver Licensing

New Bills Introduced

Connecticut—H. 3480—requires examination of drivers over age 69.

Maine — S. 368 — requires examination of drivers over age 64.

Minnesota—H. 331—requires eyesight tests for driver license. H. 558—requires re-examination of person convicted of two or more moving violations during preceding license period.

Missouri—H. 43—provides for the temporary suspension of driver license of aged person over 70 involved in traffic accident.

Montana—S. 194—provides for compulsory re-examination of drivers every six years.

Nebraska—LB 576—requires re-examination of drivers every four years.

New Jersey—H. 246—forbids restoration of driver license while appeal for drunk driving conviction is pending.

New York—H. 4027—prohibits issuance of driver license or renewal thereof unless person submits evidence of successful completion of driver training course.

Ohio—H. 286—requires eye examination as condition to driver license issuance.

Action and Additional Information

Montana — H. 127 — authorizes driver license board to require incompetent or negligent drivers to appear for re-examination—passed House. S. 86—requires surrender of other driver license upon issuance of Montana license—passed Senate. S. 132—relates to probationary license for unsafe drivers — passed both Houses.

Washington — S. 90 — abolishes conditional driver licenses that restrict drivers with defective vision—passed Senate. H. 161—prohibits driver from having more than one driver license—passed House.

COMING EVENTS

May 1-3, Syracuse, N. Y.

Seventh Central New York Safety Conference & Exposition, Hotel Syracuse. Contact Newell C. Townsend, manager, Greater Syracuse Safety Council, Syracuse Chamber of Commerce, 351 S. Warren St., Syracuse 2, N. Y.

May 4-6, Norfolk, Va.

Twenty-seventh Annual Conference of Virginia Safety Association at Hotel Monticello. Contact Hiram M. Smith, Jr., publicity director, Virginia Safety Association, 810 Mutual Bldg., Richmond 19, Va.

May 8-10, Bethlehem, Pa.

Thirty-fourth Annual Eastern Pennsylvania Safety Conference at Hotel Bethlehem. Contact Harold A. Seward, secretary-treasurer, Lehigh Valley Safety Council, 602 East 3rd St., Bethlehem, Pa.

May 9-11, Niagara Falls, N. Y.

Twenty-first Western New York Safety Conference, Hotel Niagara. Contact Clifford H. Seymour, Western New York Safety Conference, P. O. Box 315, Niagara Falls, N. Y.

May 10-12, Durham, N. C.

Thirty-first Annual North Carolina Statewide Industrial Safety Conference at the Jack Tar Durham Hotel. Contact H. S. Baucom, director of safety, North Carolina Industrial Commission, Raleigh, N. C.

May 16-17, Oklahoma City, Okla.

Thirteenth Annual Oklahoma Safety Conference. Skirvin Hotel. Contact Bob Eastman, manager, Oklahoma Safety Council, Inc., 1600 N. W. 23rd St., Oklahoma City, Okla.

May 18, Green Bay, Wis.

Thirty-third Fox River Valley and Lake Shore Regional Safety Conference. Contact J. A. Long, general chairman, Bay West Paper Co., Green Bay, Wis.

June 5-9, New York City

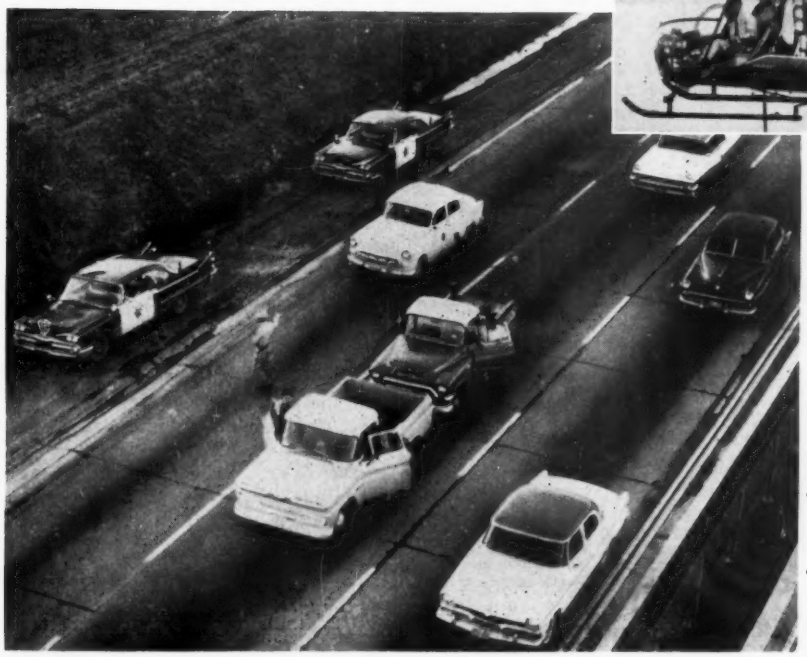
Regional Traffic Court Conference. Fordham University. Contact Traffic Court Program, American Bar Center, 1155 East Sixtieth St., Chicago 37, Ill.

June 13-14, Hartford, Conn.

Connecticut Safety Conference, Hotel Statler. Contact Charles Wooding, Conference Chairman, Wallingford Steel Co., Wallingford, Conn.

June 15-17, Carbondale, Ill.

Eighth Annual Conference of the Campus Safety Association at Southern Illinois University. Contact James E. Aaron, Program Chairman, Safety Education Center, Southern Illinois University, Carbondale, Ill.



Air-ground coordination keeps traffic moving after rear-ender. During month long test air-borne patrolmen spotted speeders, reckless drivers and motorists in need of help.

CALIFORNIA HELICOPTER PATROL CUTS ACCIDENT RATE

Helicopter patrol of the Oakland (Calif.) Nimitz Freeway by the California Highway Patrol reduced the accident rate on the busy highway by 66 per cent, according to officials in charge of a recent 30-day test.

The aerial police patrol was unique in that a commercial air service, Aetna Helicopters, provided the helicopter, pilot and all maintenance.

Throughout December 1960, one light utility helicopter, a 3-place Hiller, made regular patrols during commuter hours and busy week end traffic over a 10 mile, 6-lane divided section of California State Route 17. This section of the Nimitz Freeway leads from fast-growing industrial suburbs to the San Francisco Bay Bridge.

Two sergeants from the force were assigned as observers to fly with Cliff Anderson, an ex jet fighter pilot. Routine patrols were flown at 60 to 65 m.p.h. at altitudes of 50 to 150 feet above the shoulder of the road. Air speeds ranged from almost 100 m.p.h. to check out possible mishaps, to zero to direct ground units.

In addition to the helicopter's aircraft radio, a two-way police radio was installed for communications with both the central dispatcher and patrol cars. Once the observer spotted a tie-up or violator he would radio the nearest police car, each of which had a large identifying numeral taped to its roof.

As a heavily travelled artery, the Nimitz Freeway (named to honor local resident, Fleet Admiral Chester Nimitz) has been the subject of careful hour-by-hour accident rates since its completion. Despite the increase in usage due to population growth in the area, the highway patrol reported the copter patrol reduced to one-third the number of accidents compared with similar periods in all previous years. Highway patrol officials attribute part of the reduction to the mere presence of the law overhead.

In commenting on the role of a commercial firm providing police helicopter service, Robert Trimble, general manager of Aetna, pointed out that most commercial operators have the latest, most powerful helicopters. Because they're used on a number of projects throughout the year, maintenance facilities are necessarily more complete and costs are lower through higher utilization.

"We would like to see," Trimble concluded, "longer evaluations with helicopters that could double as patrol car and aerial ambulance. With highways planned for this type of copter patrol, helicopter units could direct ground units and, in case of a collision, evacuate the critically injured right from the highway."

NEWS FROM CAPITOL HILL

THE new administration has been active in submitting Presidential programs and messages to the Congress.

Traffic Safety

President Kennedy requested William R. Hearst, Jr., to continue as chairman of the President's Committee for Traffic Safety, and expressed gratitude for his effort "to help solve one of the most pressing problems facing the nation today—the high percentage of traffic fatalities."

In a special highway message, the President warned the Congress that the highway program "is in peril." Unless an extra $11½ billion in taxes is made available, the road construction program will be five years behind schedule, he added. The highway program makes a "vital contribution" to "our safety," the chief executive stated. He told Congress: "Better, more modern highways—with less congestion, fewer dangerous curves and intersections, more careful grades and all the rest—mean greater highway safety. It has been estimated that more fatalities will be suffered in traffic accidents between now and 1975, when the new system is fully operative, than were suffered by American troops in every conflict from the Civil War through Korea."

Referring to the traffic fatality and injury statistics for 1960, he said that "the interstate system, when completed, it is estimated, will save at least 4,000 lives a year." He asserted that the "ratio of accidents and deaths per mile driven" on new expressways "is only a fraction of what it is on ordinary roads," and that trucks have had fewer accidents on the new highways constructed under federal grant programs.

The President's highway message proposed the following: 1) retention of the 4-cent federal gas tax, 2) instead of the extra ½-cent gas tax recommended by President Eisenhower, President Kennedy proposes raising taxes on heavier trucks using diesel fuel as a means of requiring them to bear "their fair share of the cost of this program," and 3) extension of billboard controls for four years after their expiry in June 1961, and increasing the incentive bonus from ½ per cent to 1 per cent of a state's allotment. Billboards, said the President, "tend to detract from . . . the safety of the routes they line." The President said that if this measure is insufficient "it may be necessary to adopt more direct means of control or to at least charge the billboard owners for the benefits they are receiving."

The Bureau of Public Roads disclosed that there were 3.5 million miles of roads and streets in the United States in 1959 under the jurisdiction of all levels of government. Of this total, rural roads comprise some 88 per cent, or slightly over 3 million miles. Municipal roads and streets account for 416,000 miles, or 12 per cent of the total. Slightly over a million miles of all roads and streets in the U.S., or 29 per cent of the total, are unsurfaced. The bureau's comment in releasing this report was that "the nation's needs lie generally not in more mileage but in improvement or replacement of existing highways."

Congressman Scherer told the House, in defending the interstate highway program, that it would "save $727 million now wasted on traffic accidents." He said that "the controlled-access highway is 2½ times safer than the ordinary highway" and that "highways engineered for safety, like the Interstate System, by 1970 will be saving at least 6,500 lives per year." He concluded his remarks thus: "In these days when we are using our best brains and spending billions of dollars to beat a path to the moon, we cannot neglect a safe and quick way to grandmother's house or the factory door."

H.J. Res. 154 (Roberts), would request the President to call a White House Conference on Highway Safety "broadly representative of persons dealing with problems of highway safety." The conference's membership would include senators and congressmen, and representatives from the legal, engineering and medical professions; highway users; federal, state and local governments; industry, and "groups working in the safety field." The aims for the conference would be to promote and encourage: (1) adoption of state and local laws and ordinances to promote motor vehicle safety, (2) "the construction of safer motor vehicles," (3) measures dealing

Clean Your Eyeglasses Once a Day

The Guild of Prescription Opticians of America is turning out some effective traffic safety promotion in connection with its "Clean Your Eyeglasses Once a Day" campaign.

The guild is urging people who wear glasses to make sure that their lenses are crystal clear for better sight and for safety when walking and driving.

The illustration below is one they are using to point up the relationship between clear lenses and safe driving.

with vehicular exhaust, (4) interstate compacts to promote highway safety, and (5) "improved methods of licensing and examining drivers to keep chronic lawbreakers from driving." H.R. 3902 (Teague) would require the President to call such a conference in January 1962 for programs of highway safety, and specifically mentions uniformity of highway signs, signals and markings as one of its objectives.

Commercial Transportation

S. 867 (Case, N. J.) designed to create a single Department of Transportation, would transfer to such department the safety programs of the ICC, according to the bill's sponsor.

The new Attorney General of the United States is continuing with the program designed to punish the illegal sale of sleep-preventing drugs to highway drivers. In an ICC motor carrier accident report, it was recommended to the ICC that it prescribe rules to prohibit the possession and use of such drugs by drivers without authorization by a physician. The report stated that, in the meantime, there was under way "a vigorous enforcement program" to deal with the problem under present rules limiting hours of service.

The ICC reversed an earlier ruling which denied a request made by several railroad labor unions, and ordered a commission proceeding into railroad crossing accidents involving railroad trains and highway motor vehicles transporting liquid petroleum products, explosives, flammable or oxidizing substances, flammable or poisonous compressed gasses, volatile liquids or solids which emit poisonous fumes, corrosive liquids, and radioactive materials. ICC's purpose is to determine "what further safety requirements can and should be made, within the authority of the commission, what additional legislation may be necessary, and for the further purpose of focusing public attention on the gravity of the safety problem occasioned by collisions at railroad crossings between railway trains and such motor vehicles." The commission made all carriers of the listed subjects parties to the proceeding. It also invited participation of state, county and municipal governing bodies with authority over railway or highway safety, employer and employe groups in the railway and motor carrier industry, and "other interested persons."

CLEVELAND PLANS ALL-COMMUNITY "SAFETY SPECTACULAR" CAMPAIGN

Cleveland and Cuyahoga County, Ohio, are out to prove that they can, in one year, reduce their accident toll by 100 deaths and 12,000 disabling injuries and realize an economic saving of $10 million.

They plan to do this by a "Green Cross Safety Spectacular"—a campaign that will begin on the Labor Day holiday weekend and continue for one year. It is based on a united attack on accidents of all kinds by all citizens of the city and county.

"We are not going into this campaign with a wistful hope for a 'safer community' or a vague goal of a 'substantial reduction' in the toll," said Paul J. Hoover, president of the Greater Cleveland Safety Council, as he announced the campaign.

"We are confident that with the proper effort the all-accident toll in Cleveland and Cuyahoga County can be cut in one year by 100 deaths and 12,000 disabling injuries, and we have set that saving in human life and limb as our definite goal.

"The National Safety Council, which is actively supporting this project, estimates that such a reduction would represent an economic saving of $10 million. The Greater Cleveland Safety Council is a chapter of the National Safety Council."

Dr. Samuel R. Gerber, county coroner, heads the executive committee which will direct the program. Other members are Hoover; Allen James Lowe, treasurer of the safety council; William E. Billings, executive vice president of the council, and Paul Jones, campaign administrator.

Jones, who was director of public information for the National Safety Council for 23 years before his retirement last year, had this to say about the campaign:

"For 20 years the National Safety Council has declared that a community could sharply reduce its all-accident toll if it would combine enough money, energy, spirit and courage to really go after such a reduction.

"Cleveland is the first community in the nation to accept the challenge. Furthermore, it is setting a specific measurable goal.

"This campaign could be the greatest stimulus to accident prevention throughout the country that the organized safety movement has seen."

The U. S. Public Health Service has provided $100,000 for production of films and other public information material to be used in the campaign. The Cuyahoga County Commissioners have provided $20,000. The U. S. Public Health Service is also sending a team of statisticians, headed by William James, at one time head of the National Safety Council's statistical department, to make an exhaustive evaluation of the accident record in Cleveland and Cuyahoga County, and to establish a statistical base for the safety spectacular campaign.

The all-accident death toll in Cleveland and Cuyahoga County in 1960 was 678. Disabling injuries were estimated by the National Safety Council at 80,000 and the economic loss at $65 million.

Former Cleveland resident Raymond Burr, star of the Perry Mason television show, will make TV films, speeches and personal appearances on behalf of the campaign.

Grant to Cornell

A grant of $175,000 to the Automotive Crash Injury Research program of Cornell University has been announced by the Automobile Manufacturers Association.

The Cornell award is in addition to $1,706,000 already contributed by AMA in the 1960-61 fiscal year to promote greater traffic safety and more efficient use of highways.

This is the third successive year in which AMA has granted funds to the Cornell program. In three years previous to AMA participation, grants were made by individual vehicle producers. Auto industry contributions to the program now total $1,100,000. Additional support is provided by U. S. government agencies.

BAD BRAKES KILL

BAD BRAKES were a contributing cause of more than 400 traffic deaths in 1959 according to the National Safety Council. In 1958 the AAA listed brake failure as the 10th major cause of highway emergency service calls —in over a million instances.

The average motorist has no idea of how his brakes work, or has only a hazy notion that a liquid is involved. The driving public is also woefully ill-informed as to the importance of adequate brake maintenance. Many drivers operate on the erroneous assumption that brakes are infallible. Some believe that when a car is serviced, the quantity and quality of the fluid in the reservoir will be checked and added to if necessary. Both of these assumptions are false!

Today, all cars produced in the U. S. as well as virtually all foreign makes have hydraulic brakes.

The 1922 Dusenberg was the first car to use hydraulic brakes. The Stutz was quick to follow, and Chrysler used them in '24, Oldsmobile in '34, all General Motors cars in '36, and Ford in '39.

How Your Brakes Work

Hydraulic brakes operate on a simple law of physics which states: (1) That liquid confined in a container is not compressible; (2) that pressure applied to a confined liquid is equally transmitted to all parts of the liquid.

The hydraulic brake consists of a rotating member (brake drum and wheel) and a stationary member (brake shoe and wheel cylinder). Let's take a quick look at your braking system to see how it works: When you step on the brake pedal, you set in motion the brake linkage. This pushes forward a piston encased in a master cylinder. This cylinder contains hydraulic brake fluid. Since the liquid can't be compressed, the pressure put on the fluid by the piston goes through tubes to each wheel. Here the force is applied through separate, smaller cylinders and piston arrangements to bring the brake shoe with its special lining against the inside of the brake drum. That slows you down; the harder you push, the faster you slow down or stop.

Although brakes and brake linings have improved substantially within the last 10 to 15 years, it must be remembered that wheels have been reduced in size in recent years, and therefore turn over faster. Drums have become smaller and cars heavier. In addition, horsepower in most cars has been doubled and even tripled. Newer cars, with smaller, more enclosed wheels tend to build up higher temperatures at the brakes which tends to speed up brake deterioration.

Why Brakes Fail

Under hard brake applications brake drums expand very rapidly. Just a few applications from a speed of 40 m.p.h. to a dead stop can bring about a substantial heating condition. This is why it is so important to guard against brake failure by keeping brakes adjusted fairly tight to provide plenty of pedal in an emergency.

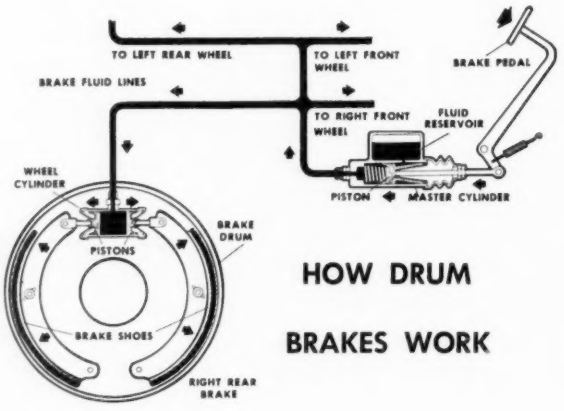
Fadeout—Of the various kinds of brake failure, "fade" is probably the most common, as it can occur when the hydraulic system is in good working order, and can be temporary in nature. Frequent, hard braking heats linings and drums. The more heat generated, the less gripping power exists between the lining and the hot brake drum. The drum expands allowing less brake shoe contact and less foot pedal. True brake fade is a loss of friction between lining and drums caused by extremely high braking temperatures or by water, oil, hydraulic fluid or grease on the lining. It can occur with the system working properly and the lining in firm contact with the drums.

Secondary Brake Fade—This results from overheated lining at a period after the lining has ceased to heat, or brake applications have been discontinued and the lining has begun to cool. That period is sometimes 10-30 minutes after the brakes are used when a driver is off his guard. At this time brakes can fail up to 100 per cent. A lubrication or glazing occurs which can render brakes entirely useless.

Brake failure may be due to lining condition. Friction wears linings down; grease or brake fluid may make them slippery. Overheating of linings and drums may result from driving with parking brake on, brakes adjusted too tight, severe operating conditions, or use of inferior brake fluid.

Fluid Problems—Brake fluid has to be tough to take the beating of stops which can bounce heat up over 250°F. If fluid has too low a boiling point and begins to vaporize, it won't transmit pressure. If the fluid contains a cheap alcohol base it may start to boil sooner, and the lines fill with vapor instead of the necessary column of liquid. Result: Pedal goes to floor, but no brakes.

Moisture, a mortal enemy of brake fluid, can lower its



HOW DRUM BRAKES WORK

heat resistance as much as 80°. About 1 per cent moisture is added to the fluid in a year—a car whose fluid hasn't been changed for two years is a borderline case.

Nobody knows how many accidents are caused because of brake failure after fluid has reached the boiling point. When fluid boils, there is no braking action, but a few minutes later, when the fluid is cool, brakes will be normal! A brake pedal which goes flat on the floor can be back up again by the time a mechanic looks at it—CHANGE your fluid *fast* if this happens to you!

Safe, sure hydraulic braking depends upon maintenance of the proper fluid in the master cylinder and correction of fluid conditions. Condensation or dirt accumulations, or mixing with inferior fluid will contaminate original quality fluid. Brake fluid should never be added from an open can. Original performance standards can be maintained only by using clean replacement fluid having the same properties as the original fluid. Nothing in the upkeep of the braking system is more important than clean fluid.

Top-grade linings supplied by reputable manufacturers can take tremendous abuse—they are well worth the extra money they cost. When subjected to extremely high temperatures, good lining will normally recover from fade upon cooling. Lower quality lining will harden or deteriorate rapidly even at moderately high temperatures.

Even in the hands of the worst driver, a set of good linings ought to last around 10,000 miles, while a good driver ought to get around 30,000 miles from a set.

Most cars use the drum type hydraulic brakes described above. Another type of automotive brake gaining increased use is the hydraulic disc brake. Widely used on race cars and railroads, the disc brake was first developed for armored war vehicles in 1940. They are reliable, powerful and efficient, and are being fitted by more and more foreign makers as standard equipment either on the front in combination with drum brakes on the rear, or on all four wheels, on vehicles of all types.

Good Habits to Get Top Performance From Your Brakes

1. *When starting the driving day,* put brakes on lightly for a few seconds while car is rolling, to cure "morning sickness" caused by accumulated moisture. Tapping brake pedal dries off moisture before calling on brakes to bring you to a safe stop.

2. *Whenever traffic permits,* slow down in a series of short brake applications to keep heat down. Jamming pedal down raises temperature at lining.

3. *Use pedal only to stop or slow down.* Keep foot off it at other times to eliminate friction which wears lining.

4. *Find a trustworthy, competent serviceman* and have entire braking system inspected every six months or 5,000 miles. When work is necessary, demand and be willing to pay for quality reline iobs with premium materials and brake fluids which meet specifications of the Society of Automotive Engineers.

5. *Regularly check pedal reserve*—keep pedal off floorboards more than the recommended two inch minimum. Beware of slack or half-down pedal. Sudden heating that expands drums and lets pedal down could leave you without brakes.

6. *When water on lining results in brake "grab,"* and erratic braking as well as fade, keep vehicle moving and apply brakes moderately to heat up and dry off lining.

7. *Have brake fluid level checked regularly*—when car is lubricated or oil changed. Brake experts recommend that fluid be changed every six months.

Don't learn about bad brakes by accident. Most tell!tale signs of impending brake trouble are inside the brake drum, hidden from the driver. Nevertheless, with few exceptions, faulty brakes give plenty of warning—provided the driver recognizes and heeds the signals.

POWER BRAKES are just as liable to failure as conventional brakes. The only difference between the two kinds of brakes, actually, is that power brakes use vacuum to help push the piston in the master cylinder, requiring less work by the driver.

Four Danger Signs of Brake Trouble

Here are things to be alert for:

1. *Pedal moves too far*—There's danger ahead if your brake pedal is less than two inches above the floor when bringing car to a full "crash stop."

2. *Brakes "grab"*—Try stopping car while holding steering wheel lightly. If front end pulls to either side, brakes on one wheel are not operating properly, causing unbalanced stops.

3. *Scratchy brakes*—If your brakes give out a scratchy, metal-to-metal sound when you apply them, it means the linings are worn and rivets are hitting the inside of drum.

4. *"Mushy" pedal*—If you step on brake pedal and it holds at one level, then abruptly drops down further, there's probably air or moisture or both in the hydraulic lines.

If Your Brakes Should Fail . . .

What can you do if you suddenly discover your foot pedal has gone down to the floorboard and you are unable to apply even an ounce of pressure on your brakes? (This can and does happen every day when inferior or deteriorated brake fluid becomes too hot.) Here's what to do: slam on the pedal hard and repeatedly in an effort to pump it up. If this fails and you are driving a gear shift car, use the engine as a brake by shifting to a second gear and bring the car to a stop by using the hand brake. If you are driving with an automatic transmission, shift to Lo position and apply the hand brake carefully. Keep cool and steer your car to a safe stop.

Globetrotting Mates and sturdy Land Rover stop in Chicago on trip across U.S.

Tiger Woman and Mate Tour America by Land Rover

The people in the picture above aren't posing for a clever advertisement. They are a South African couple on their first visit to the United States. Blanche and Bill Mate are travel-loving musicians who make their home in Durban on the southeastern coast of Africa. The pair play music ranging from rock n' roll to the classics, and Blanche claims to be the world's best performer on stringed instruments.

Billed as "The Tiger Woman and Her Mate," the pair have travelled around the world seven times, toured 19 European countries, and have logged 47,000 miles in South Africa alone.

The Mates began their American travels by landing their British Land Rover (a jeep-like vehicle that is very popular in the African Bush) at New Orleans. It was around Christmas time and they headed for sunshine and California, stopping in Dallas to buy a small house trailer.

Performing and seeing the sights everywhere they went—Los Angeles, San Diego, New Mexico, Las Vegas, Denver and Omaha—the Mates travelled back east. In Chicago, NSC photographer Jim Lehman snapped them and the Land Rover on swank Michigan Ave. They came up to NSC headquarters where they discussed their world-wide highway experiences. Later they boarded their Land Rover for the remainder of their U. S. tour, which ended in New York. They also took in Australia before heading back home.

Seven Times Around

In more than 30 years of travelling and performing, Bill Mate has toured the world seven times by car (he began driving in 1912). He holds a lifetime safe driving award from the Traffic Commission of South Africa which is presented for a minimum of 20 years without an accident. Here are some of his observations on traffic conditions, and a driving tip:

"Signs should be uniform. Not only in their messages and shapes, but in their location and height. In Durban, they're making all the signs alike and posting them in uniform positions. I don't like overhead signs and lights.

"Your roads are too slick in America, especially on curves. I can't get a 'bite'—even with the Land Rover. The surfaces are better and I can hold the road easier in England or in South Africa, where the roads are mostly tar or macadam. We have two-lane roads and some four-lane ones in Natal—no freeways, of course.

"The wife says your American drivers all but take her hand off when she's signalling for a turn. In 'Joburg,' as we call it, the drivers like to jump the lights, too. I don't like that kind of business at all.

"I've seen some traffic signals where the red light is larger than either the yellow or the green. I think that's a good idea.

"We've come all the way across from California, you know, and your Chicago drivers are the best we've encountered so far.

"When we came through the Rockies, I used an old trick of mine for making a car perform well at high altitudes: I mixed a pint of diesel oil with 10 gallons of petrol to make the fuel heavier at those heights."

Mrs. Mate is called "The Tiger Woman" because she wrote a song by that name. She plays 32 stringed instruments and has written several popular songs. She is accompanied by her husband who plays various rhythm instruments and also sings. During the war, Blanche spent many hours entertaining the troops and became widely known for it.

Since the war, the Mates have played, sung and roamed their way around the world, performing for such notables as the Queens of England, Norway and Holland, and the Cabinet of Rhodesia. They have made visits to the Zulu tribes and participated in some of their native dances. At times, their audience has consisted of more monkeys and elephants than people.

At Lourenco Marques, in Mozambique, The Tiger Woman was so popular that the Portuguese customs officials wouldn't let her out of the territory until she had played and sung for them.

STENCIL BRIGADE REVIVES FADING SIDEWALK SIGNS

Oakland, Calif. traffic police, noting that street-corner warning signs were pretty well blotted out by heavy rains and thousands of pounding feet, recently requested the Eastbay Chapter, NSC, to repaint the "Wait on Curb" and "Watch for Cars" messages.

"We're having trouble with pedestrians standing out in the street, right in the path of turning cars, while they wait for the light to change in their favor," Capt. William McMurray, director of the Oakland Police Department's traffic division, said. "They not only risk life and limb, but they impede the flow of traffic because drivers wishing to turn can't get around them."

Accordingly, the Eastbay Green Cross sent out a call for volunteer street painters to work on a Sunday morning, when traffic is fairly light in downtown Oakland. Seven Oakland High School students, all members of the Key Club, sponsored by Oakland Kiwanis, volunteered. They reported on schedule, a little tired and sleepy after a Christmas dance the night before, but eager to go to work.

The students—Chuck Thompson, Key Club president; Jim Murphy, son of Mrs. Frederick Murphy, chairman of the Eastbay Green Cross women's division; Ahmet Orge, an exchange student from Turkey; Carl Mortensen; Bill Golden; Ken Lloyd and Eric Ovalen—formed two crews, following different routes through the city's downtown area.

The stencils used for the street painting were contributed by Harold Poindexter of the Dexter Paper Box Co. The City of Oakland provided the paint, two trucks rigged for paint spraying, and two professional painters, James Purcell and Tom Sorce, to oversee the work. Clinton W. Dreyer, managing director of the Eastbay Green Cross and three staff members were also on hand to help, driving trucks, collecting the warning cones and keeping track of the routes. More than 500 signs were painted at intersections recommended by the Oakland traffic engineer, who based his recommendations on the complete statistics on pedestrian accidents kept by the Oakland Police Department.

The work, started at 8 a.m., was completed by 2 p.m. when traffic flow started to increase and further painting would have been hazardous. The WAIT ON CURB message was painted on the street at intersections having traffic signals, the WATCH FOR CARS warning at those intersections having no traffic lights.

Bill Golden (left); Tom Sorce, city painter; Carl Mortensen and Jim Murphy were part of Oakland crew that pitched in to stencil signs.

Britons Test Driving Skill

Britain's Royal Society for the Prevention of Accidents is using a novel electronic test as part of its program of driver education. The test is given to visitors at society-sponsored exhibitions throughout the year.

On equipment linked to an IBM card punch, drivers are invited to test their reactions to twelve commonly met situations on the road. These situations are illustrated by large, numbered photographs each with an associated question to which three possible answers are given. The visitor selects the answer he believes to be correct by pressing a button and is scored from 0 to 3 on each question. For example:

"When overtaking a stationary car with the driver at the wheel, what is the most important thing to look for?"

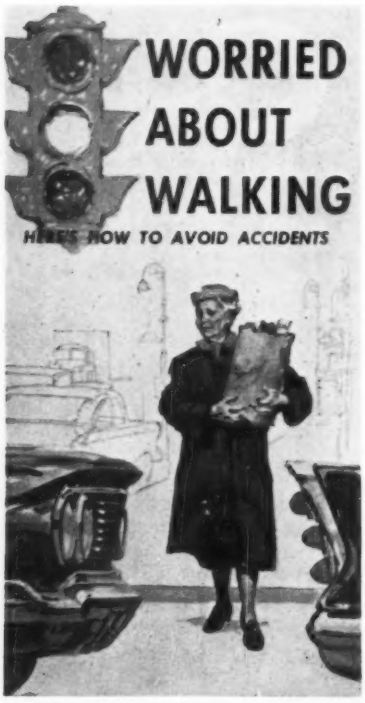
A. Front wheel moving.

B. A signal from the driver.

C. Driver's door opening.

The correct answer is C which scores 3. Answer A scores 2, while B scores only 1. The answers selected are recorded automatically by the machine, the score displayed progressively by an electric counter. On completion of all answers, the machine ejects a punched card which has recorded the answers given, together with those which would have achieved the maximum possible score.

Since the most potent cause of road accidents is the failure of the human element, the British have devised the electronic driving test as an effective means of bringing home to the individual road user his own limitations.



Both leaflets in four colors.

NEW LEAFLETS TELL OLDSTERS HOW TO STAY SAFE IN TRAFFIC

Doubtful About Driving and *Worried About Walking* are two new leaflets in the National Safety Council series, SAFETY HINTS FOR ELDERLY PERSONS. Written in simple language, but *not* in a condescending tone, these leaflets should prove a valuable aid to traffic safety pros who are conducting or contemplating traffic safety activities for senior citizens.

Each of these leaflets is 3⅝ inches x 8 inches, four pages, and illustrated in four colors. They are excellent for use as hand outs and may also be effectively distributed through pamphlet racks, and as letter enclosures.

Motivational and instructional in content, these leaflets avoid being merely a listing of admonishments and prohibitions which would be rejected by older persons, who "were driving before you were born" and, who "have managed their lives quite nicely for the past 60 years without any advice from you."

The general tenor of *Doubtful About Driving* is not "you're an old man—quit driving." Rather it is learn to compensate for the physical changes that come with age—keep up with modern driving conditions — and continue to drive safely or else cut your driving down to such necessities as getting food and medical care.

The emphasis in *Worried About Walking* is upon particular hazards to older pedestrians which are associated with failing sight and hearing, lack of knowledge about automobile maneuverability, wearing of dark clothing and common walking faults. Generally, it presents pointers which will give the older pedestrian a fighting chance in traffic with the caution not to expect the driver to do the impossible.

These leaflets may be purchased at the same prices as the four other leaflets in the series which are concerned with home safety.

These pamphlets will not SOLVE the problem of accidents among older persons in your community. But they will be a very useful program tool for the professional in his work with older persons and one which will be suitable for him to recommend for distribution by citizen support groups. In this manner they will serve not only to provide life saving information but also to arouse interest among the general public in a problem that has been plaguing the professionals for years.

SAFETY HINTS FOR ELDERLY PERSONS

(Set of six leaflets)

FORGET THINGS (599.11) — TIRE EASILY ((599.14)
A LITTLE SHAKY (599.12) — DOUBTFUL ABOUT DRIVING (599.15)
POOR SIGHT (599.13) — WORRIED ABOUT WALKING (599.16)

Complete set of six (599.20) (See prices below)

PRICES	10 to 49	50 to 499	500 to 999	1000 to 4999	5000 to 9999	10000 or more
Individual leaflets, any selection, minimum order of 50, each.....	—	$.03	$.025	$.023	$.021	$.02
Complete set of six, each.....	$.18	$.165	$.138	$.126	$.126	$.126

Please enclose cash or check with orders for less than $3.00.

BOOSTER MATERIALS

ORDERS FOR NEW POSTERS SHOWN CANNOT BE SHIPPED UNTIL AFTER JUNE 1

FACT SHEETS

Car owners agree that nice weather is motoring weather but it can mean various things to different drivers: Highway driving on a vacation trip, taking the family for a Sunday afternoon drive, shopping for a new car or tinkering with the old one, or pulling a boat out to the lake are some of the things that warm, clear weather means to drivers. Cars come in for a lot of attention in spring and early summer, be it a wax job on a nearly new one or replacement of the old jalopy.

Winter often takes a heavy toll on older cars and many of these same vehicles are called upon for vacation miles or to haul boat trailers.

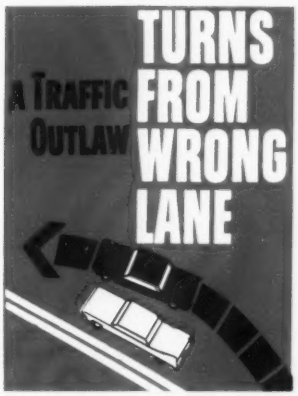
When keeping the old bus, knowing what to do if it stalls will save embarrassment and time. If you're trading, safety features, availability of service and a test drive are all important to the purchase of a car.

The longer the trip, the more important are passenger comfort and safety. Restless children often create problems that increase driver tension. Smart motorists make plans to keep little riders out of their hair on long trips.

The following timely TRAFFIC SAFETY fact sheets cover the topics mentioned above and contain good, useful information that will put readers "in the know" about these subjects. They'll help promote good driving habits and safe vehicle condition in your community.

Boat Trailers, Stock No. 329.96-2.
Children in the Car, 329.96-14.
Is Your Car Sick, Sick, Sick? (Vehicle Maintenance), 329.96-17.
Buying a Car, 329.96-26.
When Your Car Stalls, 329.96-29.
Keep Your Eye on Your Tires, 329.96-33.
Prices (Order by title and stock no.) Min. order 50, each: 50 — $.05; 500 — $.035; 1000 — $.028; 5000 — $.025.

NEW TRAFFIC POSTERS FOR AUGUST POSTING

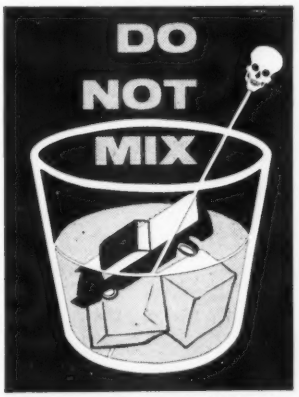


T-2126-C **25x38**
T-2127-A **8½x11½**

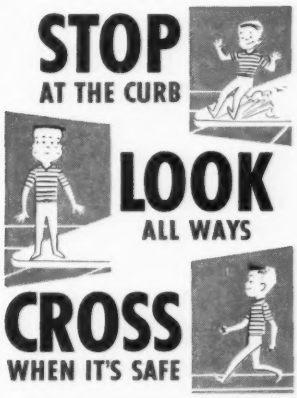
T-2128-B **17x23**

ALTERNATE POSTERS FOR AUGUST POSTING

(These posters may be ordered for immediate delivery)



T-1951-C **25x38**
T-1952-A **8½x11½**



T-1953-B **17x23**

PRICES FOR ABOVE POSTERS

Traffic Posters—T-prefix to number

	1-9	10-99	100-999	1000-4999*
A Size	$0.19	$0.13	$0.077	$0.066
B Size	.35	.25	.21	.17
C Size	.44	.33	.26	.24

YOUR CREDIT LINE can be imprinted at time of the press run on Traffic B and C posters only. Orders for imprints on August posters above must be received by June 10, 1961.

Imprinting charges for these posters are $2.25 per lot plus an initial charge for each electroplate of $21.00 for C poster imprint and $12.50 for B poster imprint.

*Write for prices on quantities of 5,000 or more and for special rates on annual poster orders.

PRICES SHOWN ARE SUBJECT TO A DISCOUNT OF 10% TO NATIONAL SAFETY COUNCIL MEMBERS

FLEET POSTERS

POSTER PRICES

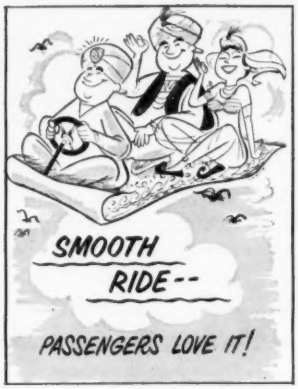
Posters illustrated on these pages are included in the automatic Motor Transportation poster services. Automatic poster sets are available on yearly subscription that provides (4) subjects per month viz. (2) "A" size (8½"x11½") and (2) "B" size (17"x23"). 281.31 Automatic service is provided in the following categories:

City Truck	City Bus	Annual price 1-4 sets, $9.90; 5-49, $7.80; 50 or more, $6.44.
Intercity Truck	Intercity Bus	
Sales Truck	Taxicab	
Truck Terminal	Bus Terminal	

Posters are available for individual selection at the following prices:

	1-9	10-99	100-999	1000-4999*
A size	$0.19	$0.13	$0.077	$0.066
B size	.35	.25	.21	.17

All prices shown are subject to a 10% discount to National Safety Council Members. *Write for prices on quantities of 5,000 or more. See page 29 for prices of posters with T-prefix.



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V-2131-B 17x23

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0807-B 17x23

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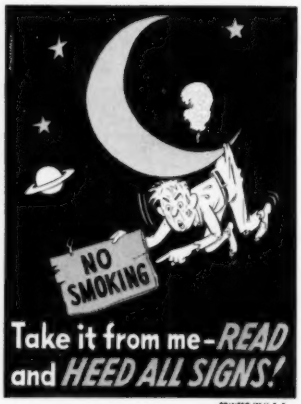
1991-A 8½x11½



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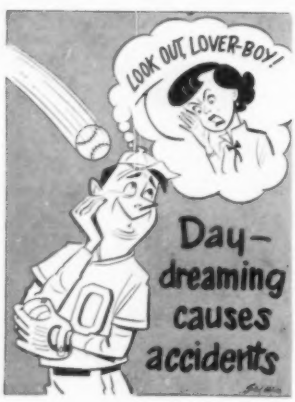
1397-A 8½x11½



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1818-B 17x23

NATIONAL SAFETY COUNCIL

8633-A 8½x11½

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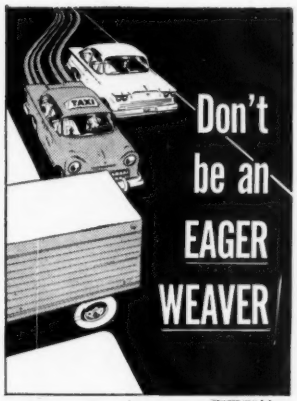
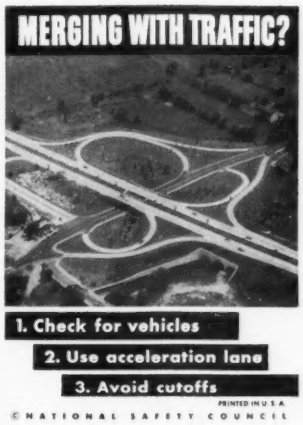
1630-A 8½x11½



V-2130-A 8½x11½

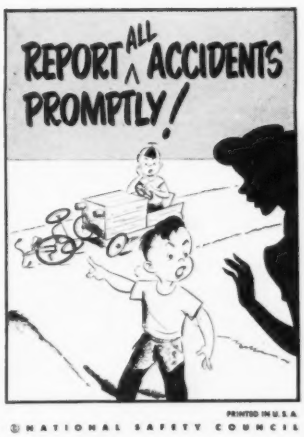


V-2132-B 17x23

V-2133-A 8½x11½

V-1070-A 8½x11½

V-0386-B 17x23



V-0821-A 8½x11½

WHAT'S YOUR DRIVING I.Q.?
DO YOU always look before leaving curb?
DO YOU give the right of way to pedestrians?
DO YOU really stop at stop signs?
DO YOU use extra caution at railroad crossings?
STOP
RAIL ROAD CROSSING
NATIONAL SAFETY COUNCIL

V-9335-B 17x23

V-1297-A 8½x11½

V-8757-B 17x23

More forceful than a lecture, driver finds he can't "stop on a dime" even with company's best tires.

BETTER DRIVING FOR THE WHOLE FAMILY

Esso Bayway Refinery acts to cut off-job accident toll

by Richard Tossell and William Sabota

WHAT WOULD you do, if your employes' off-the-job traffic accident experience increased during the past few years, while their over-all off-the-job accidents decreased? This dilemma faced Esso Bayway Refinery management and safety advisors in planning last year's program.

During the previous four years, Bayway made considerable progress in reducing off-the-job disabling mishaps. These accidents were reduced from 263 to 59 in the 1956-59 span. However, the traffic picture was not encouraging, with the percentage of traffic accidents continuously increasing during this period. Last year, 54 per cent of total days lost stemmed from traffic accidents, with one fatality.

For many years Bayway has sustained a comprehensive and progressive safety program. During the preceding four years the employes participated in many off-the-job safety activities.

Since 1957, Bayway has had a safety award program based on individual safety performance. Awards are made to employes who have accumulated a specific accident-free period without minor, sub-major, off-the-job disabling or industrial disabling injuries.

In addition to the safety award program, Bayway has conducted special emphasis programs on problem areas

Richard Tossell, is assistant director of the Esso Safety Foundation. William Sabota is personnel assistant, safety section, employe relations department, Esso Bayway Refinery.

off-the-job. For example, when a significant percentage of the total off-the-job accidents were occurring in the home, special programs were initiated.

In 1956 a home safety essay contest was conducted for employes' children, and cash prizes were awarded to winners. Guided by the success of this program, the home safety essay program was expanded to include a poster contest the following year.

In 1959 the wives of employes participated in a home safety contest which required each wife to submit a safety program for her family. In addition to cash prizes for the best six entries, all participants were eligible to choose a gift from Bayway's safety award catalog. More than 45 per cent of the families took part in the latter program.

The refinery's experience proved that incentive awards are successful in motivating employes and their families to cooperate in accident-prevention programs. The evidence strongly suggests that these activities were primarily responsible for a remarkable reduction of off-the-job accidents.

Driver Education. A special emphasis program was developed by the Esso Safety Foundation in cooperation with the Bayway Central Safety Committee to correct the adverse traffic accident rate. It was believed that a driver education program for employes and their families would obtain the best results.

Defensive Driving was selected as the theme for a proposed eight-hour driver education program, reviewed and approved by Bayway's management and union officials. The course was tried out initially with a selected group of employes.

On the basis of Bayway's favorable results with home and recreational safety programs, various incentives for maintaining a high level of interest were utilized. All available means of communication were used, and refinery management encouraged participation.

Complete information about the program and cards for enrolling in the course were sent to employes' homes. This enabled each family to discuss the program and make plans to attend as a group. A special appeal was made to teenage members of the family.

By going into the home with this program, subtle motivational pressures were brought to bear: Dad would encourage Mom and teenage family members to attend and vice-versa, since most motorists seem to feel the other fellow can improve his driving practice.

The *students* were guests of the Bayway management for dinner in the refinery cafeteria before each session. After dinner, psycho-physical tests were administered to individuals before each meeting began. Those completing all four sessions of the course were eligible to receive incentive awards. Also, on the basis of performance on the final driver knowledge test, certain drivers were invited to participate in the driving skill roadeo for the best male and best female driver awards.

Response from management, union officials, and individual employes at all levels in the refinery was gratifying. Initial enrollment far exceeded expectations. Classes were soon filled to

Student uses traveling mike to bring his question to the attention of Dr. Herbert J. Stack, the course instructor.

Representative of state's motor vehicle department uses Porto-Clinic driver testing unit to measure reaction time.

capacity and the first Esso-sponsored course was under way.

Course Organization. In the past, many driver training programs for employes have been conducted by industrial organizations. The unique aspect of the Bayway program is that all employes and members of their families were encouraged to attend together.

Four classes of about 300 persons each were signed up for the eight hour course. Every class attended a two hour session one night per week for four consecutive weeks. These sessions were held on Tuesday and Thursday, 7:30 to 9:30 p.m. during May and June.

A representative of the refinery's safety department served as course coordinator. His role called for attention to detail in preparation for each session relative to scheduling instructors and state agency representatives, visual aids, and orientation of personnel assigned to various tasks. The coordinator summarized the previous sessions and introduced instructors and guests. He also made appropriate closing remarks.

Various Approaches

A different instructor supervised each of the four sessions. The best qualified educators available within a reasonable distance from the refinery were invited to instruct. These men followed the course outline and objectives developed by the Esso Safety Foundation.

Visual aids suitable for large audiences were used. Audience participation was encouraged through discussion techniques and demonstrations. Instructors used a combination of lapel and stand microphones. Two microphone handlers, moving along the aisles of the auditorium with traveling mikes, stimulated comments by the audience. This technique enabled individuals to speak to the entire group. An effort was made to answer questions relative to course objectives. Also, participants were encouraged to write questions on cards provided at each session. The questions were answered at subsequent sessions.

The theme, Defensive Driving, took advantage of the fact that many drivers blame the other fellow for accidents and poor driving practices. As the course progressed, criteria for driving practices were developed. Individuals were encouraged to evaluate their own driving practices in the light of these yardsticks. Feelings and attitudes were examined to improve personal insight. In these ways the course sought to develop the *attitudinal* aspects of driving.

Present at each session were representatives of the motor vehicle department of New Jersey and the state police. These representatives backed up the instructor by being available to answer questions. However, it was the instructor's responsibility to keep sessions moving and to hold the interest of the audience.

Improving Human Relations. Inasmuch as this course has received favorable newspaper coverage at the refinery and in the community, workers not taking part have been favorably influenced and have become aware of all the course's objectives.

The program added to the prestige of Esso in the community and impressed on all employes and their families that management was giving full support to this safety activity.

This program helped employe relations by enabling management and their families to meet on an equal, continuing basis with hourly and salaried employes and their families. In addition, it strengthened the relationship between Esso and the participating state agencies, such as the New Jersey State Police, the New Jersey Division of Motor Vehicles, and the New Jersey State Safety Council.

During the two months of the program there were only three (one in traffic) off-the-job disabling accidents. The reduced off-the-job frequency of 4.3 for the first half of this year is believed to be due largely to the defensive driving program. At present, Bayway is bettering its 1960 refinery goal for off-the-job disabling accidents established at the beginning of the year at 41 for a frequency of 4.7, compared to 17.0 for 1956.

This driving program also contributed significantly to Bayway's improved industrial injury frequency of 1.25 per million man-hours for the first half of this year, compared to last year's frequency of 2.21. Esso management feels the course will make safer workers, as well as safer drivers.

More than 85 per cent of the participants voluntarily took the driver knowledge test at the end of the course. Scores on the 50 questions based on course material average 82.5. This indicated the students learned their lessons well. Little difference was noted between average scores for the men, women, and teenagers. This indicated that all age groups benefited about equally.

Reaction of employes and relatives participating has been gratifying. On a course evaluation questionnaire completed at the end of the last session, 99 per cent of the students rated the program "excellent" or "good" on its educational value and helpfulness, and thought it was the right length. About one-half added comments on the value of the program. Typical of those received are:

"Enjoyed the program very much and have picked up important pointers toward safer driving."

"I think that more companies and associations should promote this type of program. The course conditions our attitudes on driving and brings to our attention poor driving habits which we were not conscious of. The program was well worth attending."

Highway Patrol Tires Guard Against Shock

A new high-speed tire designed to prevent destructive "shock waves" from building up to the point where they can cause blowouts or other failures has been developed by B. F. Goodrich Tire Co. for use on police cars and other emergency vehicles.

E. F. Tomlinson, president of the B. F. Goodrich division, said a scientifically determined cord angle in the 4-ply nylon tubeless tires is responsible for eliminating shock waves.

The new tires were tested by an independent tire-testing agency at speeds up to 120 m.p.h. in temperatures ranging from 84 to 102 degrees, Tomlinson said.

To pass rigid requirements laid down by various state highway patrols, the tires had to survive a grueling 90-mile test-track run at an average speed of at least 115 m.p.h. and another 4,000 miles at an average speed of 85 m.p.h, Tomlinson said. At the end of the tests they showed no signs of tear, thrown tread rubber, tread separation or weaknesses that could cause blowouts.

SAFETY MILESTONE FOR FLEET MOTOR VEHICLES

by Alfred C. Finch

A MILESTONE in the development of a more professional approach to accident prevention was reached by the motor transport industry last November 19 with the adoption of an American Standard for the measurement of motor vehicle fleet and passenger accident experience.

The new standard is available in two versions — D15.1 and D15.2. D15.2 covers both motor vehicle accident rates and passenger accident rates. D15.1 contains only that part of D15.2 which pertains to motor vehicle fleet accident experience.

The accident rate as a yardstick for measuring fleet safety performance from year to year and from month to month in a single fleet of vehicles or for comparing experience between fleets has been employed widely by fleet operators for many years. Many of the larger trade associations had developed independently their own method of defining and counting accidents and the computation of rates. These methods differed one from another in minor but important respects and made it difficult to compare rates from group to group. With the adoption of the new standard, the motor vehicle fleet and passenger accident rate will become an even more valuable tool of accident prevention at the company and higher levels.

Under the new standards a motor vehicle fleet accident is defined as "any occurrence involving a fleet motor vehicle which results in death, injury, or property damage, unless such fleet vehicle is properly parked. Who was injured, what property was damaged or to what extent, where it occurred, or who was responsible is not a factor."

Alfred C. Finch is manager of the National Safety Council's motor transport department.

Frequency rate under the new code is defined as "the number of motor vehicle fleet accidents per million miles." This is a major departure from current useage which figures accidents per hundred thousand miles. This will have the effect of increasing the numerical size of the frequency rate. Many present fractional rates will become whole numbers because old rates, based on 100,000 miles, will be multiplied by ten. Such a multiplication factor will have to be applied to previously established rates when translating them into terms of the new standard.

Another innovation in the new code is that collisions between two company vehicles will be counted as two accidents instead of as one.

Semantics

A motor vehicle fleet passenger accident is defined as "an incident involving a fleet motor vehicle that results in the death or injury of any passenger."

Passenger is defined as "a person, other than the operator thereof, who is in or on a motor bus, trolley coach or taxicab for the purpose of being transported. Such persons are classified as passengers irrespective of whether compensation for transportation has been or will be paid. Employes of the carrier are not classified as passengers unless they are in the vehicle solely for the purpose of being transported and have no duties or responsibilities with respect to the operation of the vehicle."

Frequency rate of motor vehicle fleet passenger accidents is the number of passenger accidents per 1,000,000 passengers transported.

All industry groups are urged to make prompt and broad use of the new standard and bring their own accident reporting procedures into conformity with it so that a wider range of comparative data will be made available to the industry. The National Safety Council is already re-drafting the rules of the National Fleet Safety Contest in an attempt to bring them into conformity with the D15 standard as far as possible and before the start of the 1961-1962 contest in July.

A prime mover in initiating this ASA project was Karl Schulze, senior safety engineer, Standard Oil Co. of California, who, as a member of the executive committee of the NSC's Commercial Vehicle Section first suggested the development of such a code. The committee adopted this suggestion and moved that the American Trucking Association be invited to co-sponsor the project. This, the ATA agreed to do.

Thirty-three additional organizations agreed to participate in the project and appoint representatives to serve on the committee. After five meetings over a period of two years and under the able chairmanship of Van Court Lucas, administrative assistant for the American Transit Association, the committee finally agreed upon a final draft of a standard and forwarded it to the American Standards Association on May 4, 1960.

On November 29, 1960, the proposed standard was officially approved by the American Standards Association and designated in ASA records as follows: *American Standard Method of Recording and Measuring Motor Vehicle Fleet Accident Experience*, D15.1-1960 (UDC 31:614.8:656.13); *American Standard Method of Recording and Measuring Motor Vehicle Fleet and Passenger Accident Experience*, D15.2-1960 (UDC 31:614.8:-656.13).

TRAFFIC SHORT COURSES

July, August, and September, 1961

July 10-August 15—Sixth Annual Seminar of the International Association of Auto Theft Investigators — University of Oklahoma, Norman.

July 11-15—Five-day Mountain Region Traffic Court Conference—University of Denver, Denver, Col.

July 17-28—Two-week Eastern Region Police Traffic Training — University of Maryland, College Park, Md. (Northwestern University Traffic Institute, Evanston, Ill.)

July 17-August 25—Six-week course in polygraph examination techniques and related subjects—Keeler Polygraph Institute, 341B East Ohio St., Chicago, Ill.

July 18-29—Accident Investigation—University of Maryland, College Park, Md.

July 18-August 22 — Six-week resident training course in polygraph examination techniques—Keeler Polygraph Institute, Chicago 11, Ill.

August 5—Deadline for applications, Fall 1961 Term—Southern Police Institute, University of Louisville, Louisville 8, Ky.

August 22-26 — Trainers of Commercial Drivers—Quebec Safety League, Montreal, Canada. (Paul LeBeouf.)

September-November—Efficient Terminal Management—Southern Illinois University, Carbondale, Ill. (James E. Aaron.)

September 11-15—Five-day Southern Regional Traffic Court Conference—University of Tennessee, Knoxville, Tenn. (Northwestern University Traffic Institute, Evanston, Ill.)

September 11-15—Motor Fleet Supervisors—Penn State University, University Park, Pa. (Amos E. Neyhart.)

September 11-22—Two-week Southeastern Region Police Traffic Training—University of Tennessee, Knoxville, Tenn. (Northwestern University Traffic Institute, Evanston, Ill.)

September 11-29—Motor Vehicle Control for the Air Force—Northwestern University Traffic Institute, Evanston, Ill.

September 11-29—Three-week Traffic Law Enforcement—Administration and Techniques—Northwestern University Traffic Institute, Evanston, Ill.

September 11-October 20—Six-week Polygraph Examiners Training Course—National Training Center of Lie Detection, 57 West 57th Street, New York 19, N. Y.

September 11-December 1—Twelve-week Fall Term—Southern Police Institute, University of Louisville, Louisville 8, Ky. (Application deadline: Aug. 5.)

September 12-16—Five-day Southern Region Traffic Court Conference—University of Tennessee, Knoxville, Tenn.

September 12-16—Motor Fleet Supervisor — Penn State University, University Park, Pa. (Amos E. Neyhart.)

September 12-23—Police Training Course, Subject to be Announced—University of Tennessee, Knoxville, Tenn.

September 12-30—Fundamentals of Police Traffic Service—Northwestern University Traffic Institute, Evanston, Ill.

September 13-November 15 — Efficient Fleet Operation — Sarasota Vocational School, Sarasota, Fla. (C. A. Bellum.)

September 14-June 11—Traffic Police Administration Training Program—Northwestern University Traffic Institute, Evanston, Ill.

September 15-November 17 — Effective Fleet Operation—Lendsay Hopkins Vocational School, Miami, Fla. (Ted Koschler.)

September 15-June 11—Traffic Police Administration Training Program—Northwestern University Traffic Institute, Evanston, Ill.

September 18-22—Motor Fleet Supervisors—Ontario Safety League, Toronto, Canada. (Frank C. DeVenne.)

September 18-October 27 — Six-week course in Polygraph examination techniques and related subjects — Keeler Polygraph Institute, 341B East Ohio St., Chicago, Ill.

September 19-23 — Fleet Supervisors — Purdue University, Lafayette, Ind. (D. A. Weaver.)

September 19-23—Motor Fleet Supervisors—Ontario Safety League, Toronto, Canada. (Frank C. DeVenne.)

September 26-30—Trainers of Commercial Drivers—Penn State University, University Park, Pa. (Amos E. Neyhart.)

September 26-October 10—Two-week Police Basic Training School—Center for Police Training, Indiana University, Bloomington, Ind.

September 26-December 5 — Motor Fleet Maintenance—University of Connecticut, Hartford, Conn. (Joseph Glasser.)

Fewer Drunk Driving Convictions in Wisconsin

During the year 1960, Wisconsin traffic courts found 4,892 motorists guilty of drunken driving. In each instance, a conviction report was forwarded to the Motor Vehicle Department at Madison, where entries were listed against the guilty drivers.

The number of drivers convicted of drunken driving in Wisconsin last year was about seven per cent lower than the total for 1959.

Milwaukee County alone last year had 1,333 convictions for operating motor vehicles while under the influence of intoxicants. Racine County was next, with 259 cases, and Dane County ranked third, with 155 cases.

Convictions of out-of-state motorists on drunken driving charges numbered 545. Many additional hundreds of Wisconsin drivers, and some out-of-state visitors, were suspected of drunken driving, but, following chemical tests or because of other factors, a less serious charge was brought against them in court—in those cases where they were asked to appear in court.

They Suffer

Under Wisconsin law, a motorist convicted of drunken driving automatically has his driving privileges ordered revoked for one year. About one out of every five drivers thus affected is recommended by the court of conviction for an occupational permit. When the Motor Vehicle Department receives such a recommendation from the court, the special permit is issued, with instructions governing the type of vehicle which may be used, the hours during which it may be driven, and the physical limits—such as a single county or several counties—within which use is authorized for the purpose of making a livelihood.

No occupational permit is granted until the affected driver has endured a 90-day "waiting period."

Last year in Wisconsin, drunken driving convictions averaged out to about 13 a day.

From Page 6

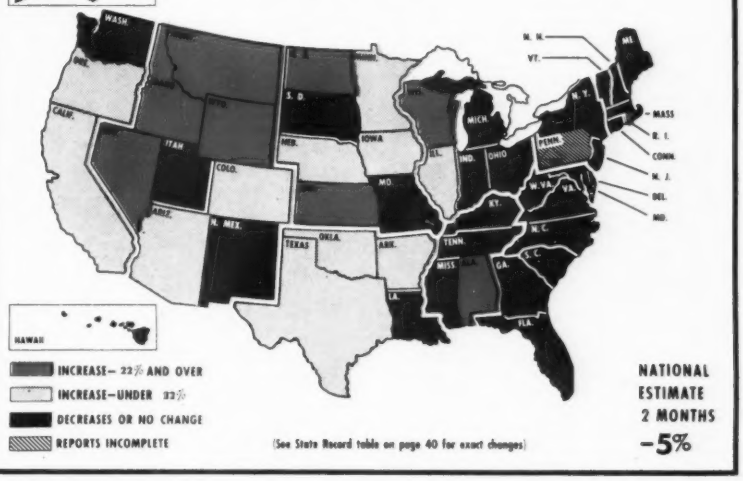
ruary, ranked according to the number of deaths per 10,000 registered vehicles, were:

	Reg. Rate	*Pop. Rate*
Group I (Over 1,000,000 Pop.)		
Detroit, Mich.	2.3	9.0
New York, N. Y.	2.7	4.9
Philadelphia, Pa.	2.7	7.2
Group II (750,000 to 1,000,000 Pop.)		
Washington, D. C.	0.0	0.0
Cleveland, Ohio	1.5	4.8
Houston, Tex.	1.8	8.3
Group III (500,000 to 750,000 Pop.)		
Buffalo, N. Y.	0.3	1.1
San Antonio, Tex.	1.3	5.1
Pittsburgh, Pa.	1.5	5.0
Group IV (350,000 to 500,000 Pop.)		
Kansas City, Mo.	1.6	5.0
Oakland, Calif.	1.8	8.2
Louisville, Ky.	2.0	9.2
Group V (200,000 to 350,000 Pop.)		
Richmond, Va.	0.6	2.7
Charlotte, N. C.	0.6	3.0
Providence, R. I.	0.6	2.9
Group VI (100,000 to 200,000 Pop.)		
Hartford, Conn.	0.0	0.0
Rockford, Ill.	0.0	0.0
South Bend, Ind.	0.0	0.0
Group VII (50,000 to 100,000 Pop.)		
Burbank, Calif.	0.0	0.0
Raleigh, N. C.	0.0	0.0
Santa Monica, Calif.	0.0	0.0
Group VIII (25,000 to 50,000 Pop.)		
Redwood City, Calif.	0.0	0.0
Cheyenne, Wyo.	0.0	0.0
Anderson, Ind.	0.0	0.0
Group IV (10,000 to 25,000 Pop.)		
Medford, Ore.	0.0	0.0
Yuma, Ariz.	0.0	0.0
Ponca City, Okla.	0.0	0.0

O.T.C. Training Course

The Ontario (Canada) Traffic Conference will present its Seventh Annual Traffic Training School from May 29th to June 9th, inclusive. Courses in police traffic training and traffic training for traffic engineering personnel will be offered. The school will be held at Huron College, University of Western Ontario, London, Ontario.

CHANGES IN MOTOR-VEHICLE DEATHS
FIRST 2 MONTHS, 1960 TO 1961



(See State Record table on page 40 for exact changes)

MOTOR VEHICLE DEATHS AND CHANGES

Months	DEATHS				PERCENTAGE CHANGES				
					Corresponding Months			4 Mos. Mov. Ave.*	
	1956	1959	1960	1961	1956-1961	1959-1960	1960-1961	1959-1960	1960-1961
January	2,954	2,824	2,880	2,650	—10%		— 8%		— 1%
February	2,652	2,401	2,370	2,320	—13%		— 2%		— 5%
2 Months	5,606	5,225	5,250	4,970	—11%		— 5%		
March	2,940	2,879	2,390			—17%		— 3%	
April	2,970	2,680	2,950			+10%		— 2%	
May	3,094	3,199	3,330			+ 4%		— 1%	
June	3,338	3,138	3,200			+ 2%		0%	
July	3,555	3,286	3,480			+ 6%		+ 5%	
August	3,535	3,502	3,460			— 1%		+ 3%	
September	3,653	3,381	3,480			+ 3%		+ 2%	
October	3,476	3,386	3,720			+10%		+ 4%	
November	3,603	3,527	3,420			— 3%		+ 2%	
December	3,858	3,707	3,520			— 5%		+ 1%	
Total	39,628	37,910	38,200						

All 1956, 1958, and 1959 figures are from the National Office of Vital Statistics. The 1960 and 1961 figures are National Safety Council estimates.

The 1961 national estimate is arrived at by assuming that the percentage change from 1960 to 1961 in the states reporting for both years reflects the 1960-1961 change in the entire country. First reports are preliminary, so revisions are made from time to time as later reports are received for the various months. Thus, figures above for 1961 may differ slightly from figures for the same months which will be published in future issues of TRAFFIC SAFETY.

*Four Months Moving Average is based on changes between the totals for four months instead of one month. For example, the February figure shows the change between the totals for November-February 1960 and November-February 1961, etc. Adding several months together tends to smooth out single month changes which may be affected by differences in the number of weekends in a month from one year to the next, random variations, etc.

TRAFFIC DEATHS—CITY RECORDS

The table covers only motor-vehicle deaths resulting from traffic accidents that occurred in the city. Nontraffic motor vehicle deaths (where the accident occurred on home or work premises) are not included; nor are deaths in the city from accidents occurring outside.

Rankings are based on the 1961 registration death rate which is the number of deaths per 10,000 registered motor vehicles on an annual basis. Vehicle registration figures are for the year 1960 and were supplied by R. L. Polk & Co.

Cities are ranked by registration death rates—from low to high. When two or more cities have exactly the same rate, ranking is by total vehicle registrations—from large to small.

Cities shown in heavy type have improved in 1961 compared with 1960.

The population death rate is the number of deaths per 100,000 population on an annual basis. Populations are as of April, 1960, or later censuses taken by the U. S. Bureau of the Census.

	Two Months 1961	1960	1959	1961 Reg. Rate	1961 Pop. Rate
ALL REPORTING CITIES				2.0	8.0
Group I (1,000,000 and over)					
1. Detroit, Mich.	25	39	19	2.3	9.0
2. New York, N. Y.	64	100	143	2.7	4.9
3. Philadelphia, Pa.	24	25	23	2.7	7.2
4. Chicago, Ill.	47	30	33	2.8	7.9
All cities in this group				2.8	7.9
5. Los Angeles, Calif.	71	71	51	3.3	17.2
Group II (750,000 to 1,000,000)					
1. Washington, D. C.	0	17	11	0.0	0.0
2. Cleveland, Ohio	7	24	17	1.5	4.8
All cities in this group				1.6	5.9
3. Houston, Tex.	13	16	22	1.8	8.3
4. St. Louis, Mo.	13	14	14	2.7	10.4
Group III (500,000 to 750,000)					
1. Buffalo, N. Y.	1	8	12	0.3	1.1
2. San Antonio, Tex.	5	16	6	1.3	5.1
3. Pittsburgh, Pa.	5	12	7	1.5	5.0
4. Cincinnati, Ohio	7	10	8	1.9	8.4
5. Dallas, Tex.	11	11	11	2.1	9.7
All cities in this group				2.1	8.7
6. Milwaukee, Wis.	10	7	12	2.3	8.1
7. San Diego, Calif.	11	13	14	3.0	11.5
8. San Francisco, Calif.	15	22	15	3.0	12.1
9. Seattle, Wash.	15	11	11	3.0	16.2
Group IV (350,000 to 500,000)					
1. Kansas City, Mo.	4	18	8	1.6	5.0
2. Oakland, Calif.	5	4	11	1.8	8.2
3. Louisville, Ky.	6	8	8	2.0	9.2
4. Memphis, Tenn.	7	8	4	2.3	8.4
5. Atlanta, Ga.	8	5	10	2.4	9.8
6. Fort Worth, Tex.	8	7	9	2.5	13.5
7. Indianapolis, Ind.	10	8	5	2.6	12.6
All cities in this group				2.6	11.4
8. Birmingham, Ala.	8	3	12	3.0	14.1
9. Phoenix, Ariz.	10	10	6	3.1	13.7
10. Denver, Colo.	13	7	8	3.3	15.8
11. Minneapolis, Minn.	12	11	9	3.4	14.9
Group V (200,000 to 350,000)					
1. Richmond, Va.	1	7	3	0.6	2.7
2. Charlotte, N. C.	1	11	5	0.6	3.0
3. Providence, R. I.	1	1	2	0.6	2.9
4. Syracuse, N. Y.	1	5	0	0.7	2.8
5. Dayton, Ohio	2	5	3	0.8	4.6
6. Wichita, Kan.	2	2	1	0.9	4.7
7. Omaha, Neb.	2	2	4	1.0	4.0
8. Toledo, Ohio	3	1	1	1.1	5.7
9. Des Moines, Iowa	2	3	0	1.2	5.7
10. Albuquerque, N. M.	2	2	7	1.3	6.0
11. Akron, Ohio	3	8	8	1.3	6.2
12. San Jose, Calif.	3	5	8	1.5	8.8
13. Oklahoma City, Okla.	6	6	5	1.9	11.1
All cities in this group				2.0	9.8
14. Tampa, Fla.	5	8	6	2.1	10.9
15. Mobile, Ala.	3	6	4	2.5	8.9
16. Norfolk, Va.	4	5	0	2.6	7.8
17. Tucson, Ariz.	5	2	3	2.7	14.1
18. Jacksonville, Fla.	7	6	4	3.3	20.9
19. Miami, Fla.	11	3	12	3.5	22.6
20. Long Beach, Calif.	10	15	5	3.7	17.4
21. Rochester, N. Y.	9	5	3	3.8	16.9
22. El Paso, Tex.	9	2	11	5.9	19.5
Group VI (100,000 to 200,000)					
1. Hartford, Conn.	0	0	0	0.0	0.0
2. Rockford, Ill.	0	0	2	0.0	0.0
3. South Bend, Ind.	0	1	1	0.0	0.0
4. Erie, Pa.	0	2	0	0.0	0.0
5. Evansville, Ind.	0	4	2	0.0	0.0
6. Jackson, Miss.	0	0	6	0.0	0.0
7. Lansing, Mich.	0	0	0	0.0	0.0
8. Amarillo, Tex.	0	3	3	0.0	0.0
9. Trenton, N. J.	0	0	2	0.0	0.0
10. Madison, Wis.	0	1	0	0.0	0.0
11. Montgomery, Ala.	0	2	1	0.0	0.0
12. Topeka, Kan.	0	0	2	0.0	0.0
13. Bridgeport, Conn.	0	3	2	0.0	0.0
14. Allentown, Pa.	0	3	0	0.0	0.0
15. Waterbury, Conn.	0	1	0	0.0	0.0
16. Niagara Falls, N. Y.	0	0	1	0.0	0.0
17. Cambridge, Mass.	0	0	0	0.0	0.0
18. Tacoma, Wash.	1	5	3	0.7	4.1
19. Salt Lake City, Utah	2	7	4	1.0	6.3
20. Worcester, Mass.	1	1	2	1.0	3.2
21. Glendale, Calif.	1	1	1	1.0	5.0
22. Santa Ana, Calif.	1	0	2	1.0	6.0
23. Yonkers, N. Y.	1	1	0	1.1	3.1
24. Grand Rapids, Mich.	2	0	5	1.1	6.1
25. Lincoln, Neb.	1	0	0	1.1	4.7
26. Flint, Mich.	2	3	1	1.1	6.1
27. Knoxville, Tenn.	1	4	2	1.1	5.4
28. Berkeley, Calif.	1	2	1	1.1	5.4
29. Spokane, Wash.	2	2	2	1.2	6.6
30. Sacramento, Calif.	3	8	4	1.4	9.4
31. Austin, Tex.	2	2	4	1.6	6.4
32. Elizabeth, N. J.	1	3	1	1.6	5.6
33. Baton Rouge, La.	2	3	4	1.6	7.9
34. Pasadena, Calif.	2	4	4	1.7	10.3
35. Newport News, Va.	1	2	1	1.8	5.3
All cities in this group				1.8	8.5
36. Arlington, Va.	2	0	1	1.9	7.3
37. Dearborn, Mich.	2	4	4	1.9	10.7
38. Chattanooga, Tenn.	2	1	3	1.9	9.2
39. Fresno, Calif.	3	2	2	2.0	13.4
40. Little Rock, Ark.	2	3	1	2.1	11.1
41. Peoria, Ill.	2	2	0	2.1	11.6
42. Winston-Salem, N. C.	2	0	0	2.1	10.8
43. Youngstown, Ohio	3	3	2	2.2	10.8
44. Anaheim, Calif.	2	4	7	2.2	11.5
45. Columbus, Ga.	2	0	1	2.4	10.3
46. Canton, Ohio	3	1	0	2.8	15.8
47. New Haven, Conn.	3	0	3	3.2	11.8
48. Hammond, Ind.	2	1	5	3.2	10.7
49. St. Petersburg, Fla.	6	12	7	3.2	19.9
50. Greensboro, N. C.	3	4	2	3.3	15.1
51. Utica, N. Y.	2	0	0	3.3	12.0
52. Corpus Christi, Tex.	4	4	1	3.4	14.3
53. Gary, Ind.	4	2	2	3.4	13.5
54. Portsmouth, Va.	2	0	2	3.5	10.5
55. Fort Wayne, Ind.	5	3	1	3.6	18.5
56. Nashville, Tenn.	5	3	1	3.7	17.6
57. Lubbock, Tex.	4	3	4	4.1	18.6
58. Wichita Falls, Tex.	3	0	0	4.5	17.7
59. Shreveport, La.	6	4	2	4.6	21.9
60. Kansas City, Kan.	6	2	3	5.1	29.5
61. Duluth, Minn.	4	1	1	5.1	22.5
62. Torrance, Calif.	5	0	4	5.7	29.7
63. Beaumont, Tex.	5	1	4	5.9	25.2
Group VII (50,000 to 100,000)					
1. Burbank, Calif.	0	3	4	0.0	0.0
2. Raleigh, N. C.	0	1	0	0.0	0.0
3. Santa Monica, Calif.	0	1	0	0.0	0.0
4. Springfield, Ill.	0	2	0	0.0	0.0
5. Alexandria, Va.	0	0	2	0.0	0.0
6. Cedar Rapids, Iowa	0	0	0	0.0	0.0
7. Odessa, Tex.	0	0	2	0.0	0.0
8. Springfield, Ohio	0	0	3	0.0	0.0
9. Royal Oak, Mich.	0	3	2	0.0	0.0
10. Racine, Wis.	0	1	0	0.0	0.0
11. Binghamton, N. Y.	0	0	0	0.0	0.0
12. Muncie, Ind.	0	2	0	0.0	0.0
13. Durham, N. C.	0	2	1	0.0	0.0
14. San Leandro, Calif.	0	1	1	0.0	0.0
15. Davenport, Iowa	0	1	2	0.0	0.0
16. W. Palm Beach, Fla.	0	1	1	0.0	0.0
17. Sioux City, Iowa	0	0	8	0.0	0.0
18. Augusta, Ga.	0	4	1	0.0	0.0
19. Palo Alto, Calif.	0	1	3	0.0	0.0
20. Eugene, Ore.	0	0	1	0.0	0.0
21. Kenosha, Wis.	0	1	3	0.0	0.0
22. Bethlehem, Pa.	0	0	0	0.0	0.0
23. San Mateo, Calif.	0	0	0	0.0	0.0
24. Wilkes-Barre, Pa.	0	2	0	0.0	0.0
25. Aurora, Ill.	0	1	0	0.0	0.0
26. Sioux Falls, S. D.	0	1	1	0.0	0.0
27. Lancaster, Pa.	0	2	2	0.0	0.0
28. Asheville, N. C.	0	0	0	0.0	0.0
29. Lake Charles, La.	0	0	0	0.0	0.0
30. St. Clair Shores, Mich.	0	0	0	0.0	0.0
31. Lorain, Ohio	0	0	0	0.0	0.0
32. Mount Vernon, N. Y.	0	1	2	0.0	0.0
33. Ann Arbor, Mich.	0	2	0	0.0	0.0
34. Evanston, Ill.	0	0	0	0.0	0.0
35. High Point, N. C.	0	1	0	0.0	0.0
36. Pawtucket, R. I.	0	0	1	0.0	0.0
37. New Britain, Conn.	0	1	0	0.0	0.0
38. Hampton, Va.	0	0	3	0.0	0.0
39. Fullerton, Calif.	0	1	0	0.0	0.0
40. Covington, Ky.	0	1	1	0.0	0.0
41. Santa Clara, Calif.	0	2	2	0.0	0.0
42. Pasadena, Tex.	0	0	0	0.0	0.0
43. Oak Park, Ill.	0	1	0	0.0	0.0
44. Warwick, R. I.	0	1	0	0.0	0.0
45. Lynchburg, Va.	0	2	1	0.0	0.0
46. Wauwatosa, Wis.	0	1	0	0.0	0.0
47. Irvington, N. J.	0	1	0	0.0	0.0
48. West Covina, Calif.	0	0	0	0.0	0.0
49. Tuscaloosa, Ala.	0	1	1	0.0	0.0
50. Lwr. Merion Twp., Pa.	0	1	1	0.0	0.0
51. Dubuque, Iowa	0	2	0	0.0	0.0
52. Lawton, Okla.	0	0	1	0.0	0.0
53. Rock Island, Ill.	0	0	0	0.0	0.0
54. Euclid, Ohio	0	0	0	0.0	0.0
55. Pittsfield, Mass.	0	1	0	0.0	0.0
56. Bayonne, N. J.	0	1	1	0.0	0.0
57. Lincoln Park, Mich.	0	1	0	0.0	0.0
58. Bloomfield, N. J.	0	0	0	0.0	0.0
59. University City, Mo.	0	0	0	0.0	0.0
60. West Allis, Wis.	0	0	0	0.0	0.0
61. Waltham, Mass.	0	1	0	0.0	0.0
62. West Hartford, Conn.	0	0	0	0.0	0.0
63. Roseville, Mich.	0	0	1	0.0	0.0
64. Meriden, Conn.	0	1	1	0.0	0.0
65. Passaic, N. J.	0	0	1	0.0	0.0
66. Brookline, Mass.	0	0	0	0.0	0.0
67. Kettering, Ohio	0	0	0	0.0	0.0
68. Orlando, Fla.	1	2	0	1.1	6.8
69. Saginaw, Mich.	1	0	0	1.1	6.1
70. Wilmington, Del.	1	0	0	1.1	6.3
71. Fort Lauderdale, Fla.	1	0	1	1.1	7.2
72. Columbia, S. C.	1	2	1	1.2	6.2
73. Hayward, Calif.	1	1	1	1.2	8.3
74. Pueblo, Colo.	1	1	2	1.3	6.6
75. Springfield, Mo.	1	4	1	1.3	6.3
76. Las Vegas, Nev.	1	1	1	1.3	9.3
77. East St. Louis, Ill.	1	2	0	1.3	7.3
78. Decatur, Ill.	1	1	1	1.4	7.7
79. Ogden, Utah	1	4	0	1.5	8.5
80. Hamilton, Ohio	1	0	2	1.5	8.3
81. Abilene, Tex.	1	1	2	1.5	6.6
All cities in this group				1.5	7.1
82. Warren, Mich.	1	2	3	1.6	6.7
83. Joliet, Ill.	1	0	0	1.6	9.0
84. Waterloo, Iowa	1	2	0	1.7	8.4
85. Macon, Ga.	1	4	3	1.7	8.6
86. Greenville, S. C.	1	1	0	1.7	9.1
87. Huntington, W. Va.	1	1	3	1.8	7.2
88. Stamford, Conn.	1	1	0	1.8	6.5
89. Lexington, Ky.	1	0	1	1.8	9.6
90. Independence, Mo.	1	1	4	1.9	9.6
91. Tyler, Tex.	1	0	0	1.9	11.7
92. Midland, Tex.	1	0	0	2.0	9.6
93. San Bernardino, Calif.	2	1	5	2.0	13.1
94. Bay City, Mich.	1	0	1	2.0	11.2
95. Vallejo, Calif.	1	1	0	2.0	9.9
96. Stockton, Calif.	2	1	3	2.1	13.9
97. New Rochelle, N. Y.	1	1	1	2.1	7.8
98. Portland, Maine	1	0	1	2.1	8.3
99. Lakewood, Calif.	1	1	0	2.1	8.9
100. Berwyn, Ill.	1	0	0	2.3	11.1
101. Council Bluffs, Iowa	1	0	1	2.5	11.0
102. Riverside, Calif.	2	2	0	2.5	14.2
103. Roanoke, Va.	2	0	0	2.7	12.4
104. Compton, Calif.	2	4	4	2.7	16.7
105. Schenectady, N. Y.	2	0	0	2.7	14.7
106. Wheeling, W. Va.	1	0	0	2.7	11.2

	Two Months 1961	1960	1959	1961 Reg. Rate	1961 Pop. Rate
107. Alameda, Calif.	1	0	1	2.8	9.8
108. Charleston, S. C.	**1**	**3**	**0**	**2.9**	**9.1**
109. Santa Barbara, Calif.	**2**	**3**	**1**	**3.0**	**20.4**
110. Norwalk, Conn.	1	1	2	3.1	8.8
111. Newton, Mass.	2	1	0	3.1	13.0
112. Reno, Nev.	2	0	0	3.3	25.3
113. Terre Haute, Ind.	2	2	0	3.3	16.6
114. Pensacola, Fla.	2	2	1	3.3	21.1
115. Rome, N. Y.	1	1	0	3.3	11.6
116. Arlington, Mass.	1	1	1	3.3	12.0
117. Warren, Ohio	2	0	2	3.6	20.1
118. Pomona, Calif.	2	1	2	3.6	17.9
119. Billings, Mont.	2	1	0	3.6	22.7
120. Waco, Tex.	**3**	**6**	**1**	**3.7**	**18.4**
121. Colorado Spgs., Colo.	3	0	0	3.7	25.6
122. Bloomington, Minn.	**1**	**5**	**0**	**3.8**	**11.9**
123. Greenwich, Conn.	1	0	2	3.8	11.2
124. Atlantic City, N. J.	1	0	1	3.9	10.1
125. Pontiac, Mich.	3	0	0	3.9	21.9
126. Kalamazoo, Mich.	3	0	0	3.9	21.9
127. Miami Beach, Fla.	2	0	4	3.9	19.0
128. Charleston, W. Va.	2	0	1	4.0	14.0
129. Gadsden, Ala.	2	2	1	4.1	20.7
130. Jackson, Mich.	2	0	1	4.2	23.7
131. Great Falls, Mont.	2	0	0	4.3	21.7
132. White Plains, N. Y.	2	0	0	4.3	23.8
133. Livonia, Mich.	2	1	0	4.6	18.0
134. Waukegan, Ill.	2	0	0	4.7	21.5
135. Brockton, Mass.	**2**	**3**	**1**	**4.9**	**16.5**
136. Fort Smith, Ark.	2	1	2	5.0	22.6
137. Parm, Ohio	2	2	0	5.6	14.5
138. Medford, Mass.	2	0	0	5.8	18.5
139. Port Arthur, Tex.	3	0	1	6.1	27.0
140. Chicopee, Mass.	2	0	2	6.9	19.5
141. Lakewood, Ohio	3	2	0	7.3	27.2
142. East Chicago, Ind.	3	3	0	10.3	31.2

Group VIII (25,000 to 50,000)

1. Redwood City, Calif.	**0**	**1**	**0**	**0.0**	**0.0**
2. Cheyenne, Wyo.	0	0	0	0.0	0.0
3. Anderson, Ind.	0	0	0	0.0	0.0
4. Yakima, Wash.	0	0	0	0.0	0.0
5. Tallahassee, Fla.	**0**	**2**	**0**	**0.0**	**0.0**
6. Mansfield, Ohio	0	0	0	0.0	0.0
7. Boise, Idaho	**0**	**1**	**0**	**0.0**	**0.0**
8. Casper, Wyo.	0	0	0	0.0	0.0
9. Everett, Wash.	0	0	1	0.0	0.0
10. Kokomo, Ind.	**0**	**1**	**0**	**0.0**	**0.0**
11. Lafayette, Ind.	0	0	1	0.0	0.0
12. Battle Creek, Mich.	0	0	0	0.0	0.0
13. Elgin, Ill.	**0**	**1**	**2**	**0.0**	**0.0**
14. Aurora, Colo.	0	0	0	0.0	0.0
15. Chula Vista, Calif.	**0**	**2**	**0**	**0.0**	**0.0**
16. Plainfield, N. J.	0	0	0	0.0	0.0
17. Newark, Ohio	0	0	0	0.0	0.0
18. Whittier, Calif.	0	0	0	0.0	0.0
19. Hollywood, Fla.	**0**	**2**	**1**	**0.0**	**0.0**
20. Appleton, Wis.	0	0	1	0.0	0.0
21. Englewood, Colo.	0	0	0	0.0	0.0
22. Salina, Kan.	0	0	0	0.0	0.0
23. Oxnard, Calif.	0	0	1	0.0	0.0
24. Clearwater, Fla.	**0**	**1**	**1**	**0.0**	**0.0**
25. Elmira, N. Y.	0	0	0	0.0	0.0
26. Owensboro, Ky.	0	0	0	0.0	0.0
27. Middletown, Ohio	**0**	**1**	**1**	**0.0**	**0.0**
28. Daytona Beach, Fla.	0	0	1	0.0	0.0
29. Quincy, Ill.	0	0	2	0.0	0.0
30. Rochester, Minn.	0	0	0	0.0	0.0
31. Pine Bluff, Ark.	0	0	0	0.0	0.0
32. Poughkeepsie, N. Y.	0	0	1	0.0	0.0
33. Enid, Okla.	**0**	**1**	**1**	**0.0**	**0.0**
34. Richmond, Ind.	0	0	0	0.0	0.0
35. Cuyahoga Falls, Ohio	0	0	0	0.0	0.0
36. Zanesville, Ohio	0	0	1	0.0	0.0
37. Port Huron, Mich.	0	0	1	0.0	0.0
38. Oshkosh, Wis.	0	0	0	0.0	0.0
39. Fargo, N. D.	**0**	**1**	**0**	**0.0**	**0.0**
40. Sheboygan, Wis.	**0**	**1**	**0**	**0.0**	**0.0**
41. Ventura, Calif.	0	0	1	0.0	0.0
42. Danville, Va.	**0**	**2**	**0**	**0.0**	**0.0**
43. Gainesville, Fla.	**0**	**1**	**0**	**0.0**	**0.0**
44. East Detroit, Mich.	**0**	**2**	**0**	**0.0**	**0.0**
45. Bloomington, Ind.	**0**	**1**	**0**	**0.0**	**0.0**
46. Montebello, Calif.	0	0	0	0.0	0.0
47. Boulder, Colo.	0	0	0	0.0	0.0
48. Portsmouth, Ohio	0	0	0	0.0	0.0
49. Menlo Park, Calif.	0	0	0	0.0	0.0
50. Granite City, Ill.	0	0	1	0.0	0.0
51. Hagerstown, Md.	**0**	**2**	**1**	**0.0**	**0.0**
52. Elmhurst, Ill.	**0**	**1**	**0**	**0.0**	**0.0**
53. Fremont, Calif.	**0**	**1**	**3**	**0.0**	**0.0**
54. Mountainview, Calif.	0	0	0	0.0	0.0
55. Ferndale, Mich.	0	0	0	0.0	0.0
56. Michigan City, Ind.	**0**	**2**	**0**	**0.0**	**0.0**
57. Mishawaka, Ind.	**0**	**4**	**0**	**0.0**	**0.0**
58. Sandusky, Ohio	0	0	0	0.0	0.0
59. East Hartford, Conn.	0	0	0	0.0	0.0
60. Santa Cruz, Calif.	0	0	0	0.0	0.0
61. East Cleveland, Ohio	0	0	0	0.0	0.0
62. Janesville, Wis.	0	0	0	0.0	0.0
63. Newburgh, N. Y.	**0**	**1**	**0**	**0.0**	**0.0**
64. Manchester, Conn.	**0**	**1**	**0**	**0.0**	**0.0**
65. Burlington, N. C.	0	0	0	0.0	0.0
66. Wausau, Wis.	0	0	1	0.0	0.0
67. Manhattan Bch., Calif.	0	0	0	0.0	0.0
68. Danbury, Conn.	**0**	**1**	**0**	**0.0**	**0.0**
69. Galesburg, Ill.	0	0	0	0.0	0.0
70. West Orange, N. J.	**0**	**1**	**0**	**0.0**	**0.0**
71. Bartlesville, Okla.	0	0	0	0.0	0.0
72. South Euclid, Ohio	**0**	**1**	**0**	**0.0**	**0.0**
73. Monrovia, Calif.	0	0	1	0.0	0.0
74. Westfield, N. J.	**0**	**1**	**0**	**0.0**	**0.0**
75. Easton, Pa.	0	0	0	0.0	0.0
76. Jackson, Tenn.	0	0	0	0.0	0.0
77. Baldwin Park, Calif.	0	0	0	0.0	0.0
78. Findlay, Ohio	0	0	0	0.0	0.0
79. Oak Park, Mich.	0	0	0	0.0	0.0
80. Columbia, Mo.	0	0	1	0.0	0.0
81. Minot, N. D.	0	0	1	0.0	0.0
82. Kingston, N. Y.	**0**	**1**	**0**	**0.0**	**0.0**
83. Burlington, Iowa	0	0	0	0.0	0.0
84. Edina, Minn.	0	0	0	0.0	0.0
85. Rock Hill, S. C.	0	0	0	0.0	0.0
86. Fond du Lac, Wis.	0	0	0	0.0	0.0
87. Grand Island, Neb.	0	0	0	0.0	0.0
88. Mason City, Iowa	0	0	0	0.0	0.0
89. Richfield, Minn.	**0**	**1**	**0**	**0.0**	**0.0**
90. Maywood, Ill.	0	0	0	0.0	0.0
91. Bangor, Maine	**0**	**1**	**0**	**0.0**	**0.0**
92. Austin, Minn.	0	0	0	0.0	0.0
93. Steubenville, Ohio	0	0	0	0.0	0.0
94. Goldsboro, N. C.	**0**	**1**	**2**	**0.0**	**0.0**
95. Fitchburg, Mass.	0	0	1	0.0	0.0
96. West Haven, Conn.	0	0	0	0.0	0.0
97. Allen Park, Mich.	0	0	0	0.0	0.0
98. Manitowoc, Mich.	0	0	0	0.0	0.0
99. Milford, Conn.	**0**	**2**	**0**	**0.0**	**0.0**
100. Birmingham, Mich.	0	0	0	0.0	0.0
101. Iowa City, Iowa	**0**	**1**	**0**	**0.0**	**0.0**
102. Kirkwood, Mo.	0	0	0	0.0	0.0
103. Watertown, N. Y.	0	0	0	0.0	0.0
104. Temple, Tex.	**0**	**2**	**0**	**0.0**	**0.0**
105. Port Chester, N. Y.	0	0	0	0.0	0.0
106. Hackensack, N. J.	**0**	**1**	**1**	**0.0**	**0.0**
107. Sherman, Tex.	0	0	1	0.0	0.0
108. Burlington, Vt.	0	0	0	0.0	0.0
109. Ames, Iowa	0	0	0	0.0	0.0
110. Watertown, Mass.	0	0	0	0.0	0.0
111. Mesquite, Tex.	**0**	**1**	**0**	**0.0**	**0.0**
112. Concord, N. H.	**0**	**1**	**0**	**0.0**	**0.0**
113. Freeport, Ill.	0	0	0	0.0	0.0
114. Hamden, Conn.	**0**	**1**	**0**	**0.0**	**0.0**
115. Amsterdam, N. Y.	0	0	0	0.0	0.0
116. Rahway, N. J.	**0**	**1**	**0**	**0.0**	**0.0**
117. Webster Groves, Mo.	0	0	0	0.0	0.0
118. Shaker Heights, Ohio	0	0	0	0.0	0.0
119. Madison Hgts., Mich.	0	0	0	0.0	0.0
120. El Cerrito, Calif.	0	0	0	0.0	0.0
121. Denton, Tex.	0	0	1	0.0	0.0
122. Mt. Clemens, Mich.	0	0	0	0.0	0.0
123. Middletown, Conn.	0	0	1	0.0	0.0
124. Carlsbad, N. M.	0	0	0	0.0	0.0
125. New London, Conn.	**0**	**2**	**0**	**0.0**	**0.0**
126. Maple Heights, Ohio	0	0	0	0.0	0.0
127. Wallingford, Conn.	0	0	2	0.0	0.0
128. Wilmette, Ill.	0	0	0	0.0	0.0
129. Fairmont, W. Va.	0	0	0	0.0	0.0
130. Revere, Mass.	**0**	**2**	**1**	**0.0**	**0.0**
131. Urbana, Ill.	**0**	**1**	**0**	**0.0**	**0.0**
132. North Miami, Fla.	0	0	0	0.0	0.0
133. Oceanside, Calif.	0	0	1	0.0	0.0
134. East Lansing, Mich.	0	0	0	0.0	0.0
135. Newport, R. I.	0	0	0	0.0	0.0
136. Highland Park, Ill.	0	0	1	0.0	0.0
137. Cranford, N. J.	0	0	0	0.0	0.0
138. Hazel Park, Mich.	**0**	**1**	**0**	**0.0**	**0.0**
139. Westminster, Calif.	0	0	4	0.0	0.0
140. Mt. Lebanon, Pa.	0	0	0	0.0	0.0
141. Leominster, Mass.	**0**	**2**	**0**	**0.0**	**0.0**
142. Park Forest, Ill.	0	0	0	0.0	0.0
143. Enfield, Conn.	0	0	0	0.0	0.0
144. Belmont, Mass.	0	0	0	0.0	0.0
145. Groton, Conn.	0	0	0	0.0	0.0
146. Lackawanna, N. Y.	0	0	0	0.0	0.0
147. Needham, Mass.	0	0	1	0.0	0.0
All cities in this group				1.4	6.6
148. Muskegon, Mich.	1	1	0	2.3	12.9
149. Modesto, Calif.	1	0	0	2.4	16.4
150. Elkhart, Ind.	1	1	0	2.5	14.9
151. Hutchinson, Kan.	1	0	0	2.6	16.0
152. Wilmington, N. C.	1	0	2	2.7	13.6
153. Elyria, Ohio	1	0	0	2.7	13.7
154. La Crosse, Wis.	1	0	1	2.8	12.6
155. Vancouver, Wash.	1	1	0	2.9	18.5
156. Pocatello, Idaho	1	0	2	2.9	21.1
157. La Mesa, Calif.	1	0	0	3.0	19.7
158. Champaign, Ill.	1	0	0	3.0	12.1
159. Highland Park, Mich.	1	0	2	3.1	15.7
160. Salinas, Calif.	1	0	0	3.1	20.7
161. Bellingham, Wash.	**1**	**2**	**0**	**3.1**	**17.3**
162. Wyoming, Mich.	1	0	0	3.1	13.1
163. Des Plaines, Ill.	1	1	0	3.1	17.2
164. Garland, Tex.	1	0	0	3.1	15.6
165. Muskogee, Okla.	1	1	0	3.2	15.7
166. Chicago Heights, Ill.	1	1	0	3.2	17.5
167. Mesa, Ariz.	1	0	2	3.3	17.8
168. Greeley, Colo.	1	0	0	3.4	22.8
169. Alton, Ill.	1	1	3	3.4	14.0
170. Beloit, Wis.	1	0	0	3.5	18.3
171. Barberton, Ohio	1	1	0	3.5	17.8
172. Linden, N. J.	1	1	0	3.5	15.0
173. Stratford, Conn.	1	0	0	3.5	13.3
174. Teaneck, N. J.	1	1	1	3.5	14.3
175. Woonsocket, R. I.	1	1	0	3.6	12.7
176. Rome, Ga.	1	0	0	3.7	18.6
177. Orange, Calif.	1	0	0	3.7	22.7
178. Bloomington, Ill.	1	1	0	3.7	16.5
179. Waukesha, Wis.	1	0	2	3.8	20.0
180. National City, Calif.	1	0	0	3.8	18.3
181. Inkster, Mich.	1	1	0	3.9	15.3
182. Park Ridge, Ill.	1	0	0	3.9	18.3
183. Kankakee, Ill.	1	1	0	3.9	21.7
184. Fairfield, Conn.	1	0	4	3.9	13.0
185. Fair Lawn, N. J.	1	0	0	4.0	16.5
186. Norwich, Conn.	**1**	**2**	**0**	**4.0**	**15.6**
187. Bristol, Conn.	1	0	0	4.1	13.2
188. Midland, Mich.	1	0	0	4.1	21.6
189. St. Cloud, Minn.	**1**	**2**	**0**	**4.1**	**17.8**
190. Lockport, N. Y.	1	0	0	4.1	22.7
191. Provo, Utah	1	0	0	4.2	16.7
192. Hamtramck, Mich.	1	1	0	4.2	17.6
193. Petersburg, Va.	1	0	0	4.3	16.3
194. Redlands, Calif.	1	0	0	4.3	22.4
195. Norman, Okla.	1	0	0	4.4	18.0
196. Torrington, Conn.	1	0	0	4.4	20.0
197. Garfield Heights, Ohio	1	1	1	4.4	15.6
198. Montclair, N. J.	1	0	0	4.8	13.9
199. Kingsport, Tenn.	1	1	0	4.8	22.8
200. Grand Forks, N. D.	1	0	0	4.8	17.4
201. Lewiston, Maine	1	0	0	5.0	14.7
202. Superior, Wis.	1	1	1	5.1	17.9
203. Rapid City, S. D.	2	1	1	5.4	28.3
204. Beverly Hills, Calif.	2	0	2	5.8	39.0
205. St. Louis Park, Minn.	2	0	1	6.1	27.7
206. Eau Claire, Wis.	2	0	0	6.4	31.6
207. Attleboro, Mass.	1	0	2	7.5	22.1
208. Lawrence, Kan.	2	0	0	7.9	36.5
209. Moline, Ill.	3	1	1	8.7	42.2
210. Southgate, Mich.	2	0	0	10.2	40.8
211. Wyandotte, Mich.	3	0	0	10.3	41.4
212. Vineland, N. J.	3	2	2	10.8	47.7
213. Calumet City, Ill.	2	0	1	12.3	48.0
214. Southfield, Mich.	4	1	0	18.0	76.2

Group IX (10,000 to 25,000)

1. Medford, Ore.	0	0	1	0.0	0.0
2. Yuma, Ariz.	**0**	**1**	**0**	**0.0**	**0.0**
3. Ponca City, Okla.	**0**	**1**	**0**	**0.0**	**0.0**
4. Lodi, Calif.	0	0	0	0.0	0.0
5. Pampa, Tex.	0	0	0	0.0	0.0
6. Holland, Mich.	0	0	0	0.0	0.0
7. Covina, Calif.	0	0	0	0.0	0.0
8. Lake Worth, Fla.	0	0	0	0.0	0.0
9. Bell, Calif.	**0**	**2**	**0**	**0.0**	**0.0**
10. Florence, S. C.	0	0	2	0.0	0.0
11. Kinston, N. C.	**0**	**1**	**0**	**0.0**	**0.0**
12. La Porte, Ind.	0	0	0	0.0	0.0
13. Sumter, S. C.	**0**	**1**	**0**	**0.0**	**0.0**
14. Manhattan, Kan.	**0**	**1**	**0**	**0.0**	**0.0**
15. New Kensington, Pa.	0	0	0	0.0	0.0
16. Ypsilanti, Mich.	0	0	0	0.0	0.0
17. So. St. Paul, Minn.	0	0	0	0.0	0.0
18. Pittsburg, Calif.	0	0	0	0.0	0.0
19. Corvallis, Ore.	0	0	0	0.0	0.0
20. Wheaton, Ill.	0	0	0	0.0	0.0
21. Klamath Falls, Ore.	0	0	0	0.0	0.0
22. Annapolis, Md.	0	0	1	0.0	0.0
23. Lombard, Ill.	0	0	0	0.0	0.0
24. Xenia, Ohio	0	0	1	0.0	0.0
25. Plainview, Tex.	0	0	0	0.0	0.0
26. Tiffin, Ohio	0	0	0	0.0	0.0
27. Great Bend, Kan.	0	0	0	0.0	0.0
28. Jeffersonville, Ind.	0	0	0	0.0	0.0
29. Borger, Tex.	**0**	**1**	**2**	**0.0**	**0.0**
30. Monterey, Calif.	0	0	0	0.0	0.0
31. Richland, Wash.	0	0	0	0.0	0.0
32. Escondido, Calif.	0	0	1	0.0	0.0
33. Sedalia, Mo.	**0**	**1**	**0**	**0.0**	**0.0**
34. Robbinsdale, Minn.	0	0	0	0.0	0.0
35. Columbia Hts., Minn.	**0**	**2**	**0**	**0.0**	**0.0**
36. Cedar Falls, Iowa	0	0	0	0.0	0.0
37. Lufkin, Tex.	0	0	0	0.0	0.0
38. Frederick, Md.	0	0	0	0.0	0.0
39. Cape Girardeau, Mo.	0	0	0	0.0	0.0
40. Muscatine, Iowa	0	0	0	0.0	0.0
41. So. Portland, Maine	0	0	0	0.0	0.0
42. Colton, Calif.	**0**	**1**	**0**	**0.0**	**0.0**
43. Brownwood, Tex.	0	0	0	0.0	0.0

	Two Months 1961	1960	1959	1961 Reg. Rate	1961 Pop. Rate
44. Pittsburg, Kan.	0	0	0	0.0	0.0
45. Fairborn, Ohio	0	0	0	0.0	0.0
46. Endicott, N. Y.	0	0	0	0.0	0.0
47. Traverse City, Mich.	0	0	0	0.0	0.0
48. Whitefish Bay, Wis.	0	0	0	0.0	0.0
49. Westport, Conn.	0	0	0	0.0	0.0
50. Muskegon Hts., Mich.	0	0	0	0.0	0.0
51. Pompano Beach, Fla.	0	0	0	0.0	0.0
52. Albert Lea, Minn.	0	0	0	0.0	0.0
53. Corsicana, Tex.	0	0	1	0.0	0.0
54. Statesville, N. C.	0	0	0	0.0	0.0
55. Hibbing, Minn.	0	0	0	0.0	0.0
56. Glenview, Ill.	0	0	0	0.0	0.0
57. W. Springfield, Mass.	**0**	**1**	**0**	**0.0**	**0.0**
58. Chico, Calif.	0	0	0	0.0	0.0
59. East Haven, Conn.	0	0	0	0.0	0.0
60. Fremont, Ohio	0	0	0	0.0	0.0
61. Ashland, Ohio	0	0	0	0.0	0.0
62. Coffeyville, Kan.	0	0	0	0.0	0.0
63. Ada, Okla.	0	0	0	0.0	0.0
64. So. Milwaukee, Wis.	0	0	0	0.0	0.0
65. Johnson City, N. Y.	0	0	0	0.0	0.0
66. Floral Park, N. Y.	0	0	0	0.0	0.0
67. Huntington, Ind.	0	0	0	0.0	0.0
68. Stillwater, Okla.	0	0	0	0.0	0.0
69. Wooster, Ohio	0	0	1	0.0	0.0
70. Streator, Ill.	0	0	0	0.0	0.0
71. Villa Park, Ill.	0	0	0	0.0	0.0
72. Hillside, N. J.	0	0	0	0.0	0.0
73. Greenville, Tex.	**0**	**1**	**1**	**0.0**	**0.0**
74. Berkley, Mich.	0	0	1	0.0	0.0
75. Caldwell, Idaho	**0**	**1**	**1**	**0.0**	**0.0**
76. Uniontown, Pa.	0	0	0	0.0	0.0
77. Kennewick, Wash.	0	0	1	0.0	0.0
78. Oswego, N. Y.	0	0	0	0.0	0.0
79. Woodland, Calif.	0	0	0	0.0	0.0
80. Martinsville, Va.	0	0	2	0.0	0.0
81. Shorewood, Wis.	0	0	0	0.0	0.0
82. Livermore, Calif.	**0**	**1**	**0**	**0.0**	**0.0**
83. Valparaiso, Ind.	0	0	0	0.0	0.0
84. El Dorado, Kan.	0	0	0	0.0	0.0
85. Antioch, Calif.	**0**	**1**	**0**	**0.0**	**0.0**
86. Greenwood, Miss.	**0**	**1**	**1**	**0.0**	**0.0**
87. Ocala, Fla.	0	0	0	0.0	0.0
88. Niles, Ohio	0	0	0	0.0	0.0
89. Sterling, Ill.	0	0	0	0.0	0.0
90. Pasco, Wash.	0	0	1	0.0	0.0
91. Stevens Point, Wis.	0	0	0	0.0	0.0
92. Meadville, Pa.	0	0	0	0.0	0.0
93. Fostoria, Ohio	0	0	0	0.0	0.0
94. Newton, Kan.	**0**	**1**	**0**	**0.0**	**0.0**
95. Snyder, Tex.	0	0	0	0.0	0.0
96. Collingswood, N. J.	**0**	**1**	**1**	**0.0**	**0.0**
97. La Grange, Ill.	0	0	0	0.0	0.0
98. McAlester, Okla.	0	0	1	0.0	0.0
99. Brookfield, Ill.	0	0	0	0.0	0.0
100. Mt. Pleasant, Mich.	0	0	0	0.0	0.0
101. De Kalb, Ill.	0	0	0	0.0	0.0
102. Faribault, Minn.	0	0	0	0.0	0.0
103. Morton Grove, Ill.	0	0	0	0.0	0.0
104. East Moline, Ill.	0	0	0	0.0	0.0
105. Bristol, Va.	0	0	0	0.0	0.0
106. Lexington, N. C.	0	0	0	0.0	0.0
107. Defiance, Ohio	0	0	0	0.0	0.0
108. Owatonna, Minn.	0	0	0	0.0	0.0
109. Rocky River, Ohio	0	0	0	0.0	0.0
110. Prescott, Ariz.	0	0	0	0.0	0.0
111. Goshen, Ind.	0	0	1	0.0	0.0
112. Lamesa, Tex.	0	0	0	0.0	0.0
113. Santa Paula, Calif.	0	0	0	0.0	0.0
114. New Bern, N. C.	0	0	0	0.0	0.0
115. Port Angeles, Wash.	0	0	0	0.0	0.0
116. Boone, Iowa	0	0	0	0.0	0.0
117. Gainesville, Tex.	**0**	**1**	**1**	**0.0**	**0.0**
118. Wisconsin Rpds., Wis.	0	0	0	0.0	0.0
119. Brainerd, Minn.	0	0	1	0.0	0.0
120. Wethersfield, Conn.	0	0	0	0.0	0.0
121. Sault Ste. Marie, Mich.	0	0	0	0.0	0.0
122. Logan, Utah	0	0	0	0.0	0.0
123. Garden City, Kan.	0	0	0	0.0	0.0
124. Junction City, Kan.	0	0	0	0.0	0.0
125. Niles, Mich.	0	0	0	0.0	0.0
126. Fergus Falls, Minn.	0	0	0	0.0	0.0
127. Hays, Kan.	0	0	0	0.0	0.0
128. Auburn, Wash.	0	0	0	0.0	0.0
129. Hawthorne, N. J.	0	0	0	0.0	0.0
130. La Grange Park, Ill.	0	0	0	0.0	0.0
131. Tracy, Calif.	0	0	0	0.0	0.0
132. Massena, N. Y.	0	0	0	0.0	0.0
133. Rye, N. Y.	**0**	**1**	**0**	**0.0**	**0.0**
134. Waynesboro, Va.	0	0	0	0.0	0.0
135. North Adams, Mass.	0	0	1	0.0	0.0
136. West Lafayette, Ind.	**0**	**1**	**3**	**0.0**	**0.0**
137. State College, Pa.	0	0	0	0.0	0.0
138. Warren, Pa.	0	0	0	0.0	0.0
139. Vernon, Tex.	0	0	1	0.0	0.0
140. Watertown, Wis.	**0**	**1**	**0**	**0.0**	**0.0**
141. Darien, Conn.	**0**	**1**	**1**	**0.0**	**0.0**
142. Windham, Conn.	0	0	0	0.0	0.0
143. Naugatuck, Conn.	0	0	2	0.0	0.0
144. Reidsville, N. C.	**0**	**4**	**0**	**0.0**	**0.0**
145. Vernon, Conn.	0	0	0	0.0	0.0
146. Grosse Pte. Wds., Mich.	0	0	0	0.0	0.0
147. Winfield, Kan.	0	0	0	0.0	0.0
148. Marshfield, Wis.	0	0	0	0.0	0.0
149. Elizabeth City, N. C.	0	0	0	0.0	0.0
150. Milibrae, Calif.	0	0	0	0.0	0.0
151. Dalles, Ore.	0	0	0	0.0	0.0
152. Galion, Ohio	0	0	0	0.0	0.0
153. Kenmore, N. Y.	0	0	0	0.0	0.0
154. Brawley, Calif.	0	0	0	0.0	0.0
155. Hopewell, Va.	0	0	0	0.0	0.0
156. Winnetka, Ill.	0	0	0	0.0	0.0
157. Escanaba, Mich.	0	0	0	0.0	0.0
158. Gardner, Mass.	0	0	0	0.0	0.0
159. Atchison, Kan.	**0**	**1**	**0**	**0.0**	**0.0**
160. Beaver Dam, Wis.	0	0	0	0.0	0.0
161. Hanford, Calif.	0	0	0	0.0	0.0
162. Ansonia, Conn.	**0**	**1**	**0**	**0.0**	**0.0**
163. South Orange, N. J.	0	0	1	0.0	0.0
164. Menasha, Wis.	0	0	0	0.0	0.0
165. Coronado, Calif.	0	0	0	0.0	0.0
166. Mitchell, S. D.	0	0	0	0.0	0.0
167. St. Joseph, Mich.	0	0	0	0.0	0.0
168. Albion, Mich.	0	0	0	0.0	0.0
169. Bay Villiage, Ohio	0	0	0	0.0	0.0
170. Los Alamos, N. M.	0	0	1	0.0	0.0
171. Fairfield, Ala.	0	0	0	0.0	0.0
172. Northbrook, Ill.	0	0	0	0.0	0.0
173. Bowling Green, Ohio	0	0	0	0.0	0.0
174. Dover, Ohio	**0**	**1**	**0**	**0.0**	**0.0**
175. Bellefontaine, Ohio	0	0	0	0.0	0.0
176. Van Wert, Ohio	0	0	0	0.0	0.0
177. Martinsburg, W. Va.	0	0	0	0.0	0.0
178. Mansfield, Conn.	0	0	0	0.0	0.0
179. Fairfield, Calif.	0	0	0	0.0	0.0
180. Cudahy, Wis.	0	0	0	0.0	0.0
181. Windsor, Conn.	0	0	0	0.0	0.0
182. Pacific Grove, Calif.	0	0	0	0.0	0.0
183. Red Wing, Minn.	0	0	0	0.0	0.0
184. Marion, Iowa	0	0	0	0.0	0.0
185. Grosse Pte. Pk., Mich.	0	0	0	0.0	0.0
186. Suffolk, Va.	0	0	0	0.0	0.0
187. Durant, Okla.	0	0	0	0.0	0.0
188. Homewood, Ala.	0	0	1	0.0	0.0

TRAFFIC DEATHS—STATE RECORDS

Deaths are reported by state traffic authorities.

All figures are preliminary. To insure proper comparisons, 1960 and 1959 figures cover the same reporting period as those for 1961.

Population Rate: U. S. population rate is the estimated annual number of deaths per 100,000 population, assuming that deaths for the rest of the year will follow the normal seasonal pattern. State population rate is the estimated annual number of deaths per 100,000 population, assuming that the monthly average of deaths will remain at the present average for the rest of the year. U. S. population rate is based on July 1, 1960 population estimate; state population rates are based on April 1, 1960 census, U. S. Bureau of the Census, Washington, D. C.

States shown in heavy type have improved in 1961 compared with 1960, or showed no change.

	Months Reported	Deaths Identical Periods 1961	1960	1959	% Change 1960 to 1961	1959 to 1961	1961 Pop. Rate	1961 Mile. Rate
TOTAL U.S.	2	4,970	5,250	5,225	— 5%	— 5%	19.8	—
Ala.	2	118	91	116	+ 30%	+ 2%	21.7	—
Alaska	2	2	1	3	+100%	— 33%	5.3	—
Ariz.	2	67	66	78	+ 2%	— 14%	30.9	—
Ark.	2	64	57	50	+ 12%	+ 28%	21.5	—
Calif.	2	566	514	538	+ 10%	+ 5%	21.6	—
Colo.	2	58	53	41	+ 9%	+ 41%	19.8	—
Conn.	**2**	**31**	**32**	**41**	**— 3%**	**— 24%**	**7.3**	**—**
Del.	**2**	**4**	**13**	**9**	**— 69%**	**— 56%**	**5.4**	**—**
D. of C.	**2**	**0**	**17**	**10**	**—100%**	**—100%**	**0.0**	**—**
Fla.	**2**	**201**	**205**	**207**	**— 2%**	**— 3%**	**24.4**	**—**
Ga.	**2**	**116**	**155**	**135**	**— 25%**	**— 14%**	**17.7**	**—**
Hawaii	**2**	**8**	**14**	**17**	**— 43%**	**— 53%**	**7.6**	**—**
Idaho	2	33	19	36	+ 74%	— 8%	29.7	—
Ill.	2	252	211	212	+ 19%	+ 19%	15.0	—
Ind.	**2**	**135**	**153**	**142**	**— 12%**	**— 5%**	**17.4**	**—**
Ia.	2	77	69	97	+ 12%	— 21%	16.8	—
Kan.	2	67	54	70	+ 24%	— 4%	18.5	—
Ky.	**2**	**85**	**114**	**95**	**— 25%**	**— 11%**	**16.8**	**—**
La.	**2**	**114**	**117**	**105**	**— 3%**	**+ 9%**	**21.0**	**—**
Me.	**2**	**16**	**20**	**25**	**— 20%**	**— 36%**	**9.9**	**—**
Md.	**2**	**46**	**90**	**77**	**— 49%**	**— 40%**	**8.9**	**—**
Mass.	**2**	**71**	**73**	**79**	**— 3%**	**— 10%**	**8.3**	**—**
Mich.	**2**	**179**	**193**	**130**	**— 7%**	**+ 38%**	**13.7**	**—**
Minn.	2	106	89	94	+ 19%	+ 13%	18.6	—
Miss.	**2**	**78**	**95**	**83**	**— 18%**	**— 6%**	**21.5**	**—**
Mo.	**2**	**137**	**163**	**114**	**— 16%**	**+ 20%**	**19.0**	**—**
Mont.	2	34	23	20	+ 48%	+ 70%	30.2	—
Neb.	2	36	32	40	+ 13%	— 10%	15.3	—
Nev.	2	25	17	15	+ 47%	+ 67%	52.6	—
N. H.	**2**	**8**	**8**	**13**	**0%**	**— 38%**	**7.9**	**—**
N. J.	**2**	**74**	**124**	**108**	**— 40%**	**— 31%**	**7.3**	**—**
N. M.	**2**	**42**	**54**	**62**	**— 22%**	**— 32%**	**26.5**	**—**
N. Y.	**2**	**204**	**274**	**303**	**— 26%**	**— 33%**	**7.3**	**—**
N. C.	**2**	**147**	**156**	**181**	**— 6%**	**— 19%**	**19.4**	**—**
N. D.	2	16	12	19	+ 33%	— 16%	15.2	—
Ohio	**2**	**193**	**249**	**203**	**— 22%**	**— 5%**	**11.9**	**—**
Okla.	2	89	78	79	+ 14%	+ 13%	22.9	—
Ore.	2	59	52	60	+ 13%	— 2%	20.0	—
Pa.	1	75	131	129	— 43%	— 42%	8.0	—
R. I.	2	11	7	8	+ 57%	+ 38%	7.7	—
S. C.	**2**	**84**	**119**	**84**	**— 29%**	**0%**	**21.2**	**—**
S. D.	**2**	**20**	**23**	**26**	**— 13%**	**— 23%**	**17.6**	**—**
Tenn.	**2**	**99**	**112**	**82**	**— 12%**	**+ 21%**	**16.2**	**—**
Texas	2	292	276	366	+ 6%	— 20%	18.3	—
Utah	**2**	**28**	**33**	**19**	**— 15%**	**+ 47%**	**18.9**	**—**
Vt.	**2**	**2**	**11**	**14**	**— 82%**	**— 86%**	**3.1**	**—**
Va.	**2**	**91**	**102**	**113**	**— 11%**	**— 19%**	**13.8**	**—**
Wash.	**2**	**70**	**78**	**63**	**— 10%**	**+ 11%**	**14.7**	**—**
W. Va.	**2**	**42**	**42**	**56**	**0%**	**— 25%**	**13.5**	**—**
Wis.	2	126	103	101	+ 22%	+ 25%	19.1	—
Wyo.	2	24	11	17	+118%	+ 41%	43.6	—
P. R.‡	2	52	48	39	+ 8%	+ 33%	13.3	—
V. I.†	2	0	1	0	—100%	0%	0.0	—
CANADIAN PROVINCES								
Alta.	2	21	38	20	— 45%	+ 5%	10.9	—
Man.	2	10	8	13	+ 25%	— 23%	7.0	—
Ont.	2	141	126	137	+ 12%	+ 3%	18.4	—
Sask.	1	6	5	2	+ 20%	+200%	8.2	—

‡Commonwealth of Puerto Rico

†Virgin Islands

	Two Months 1961	1960	1959	1961 Reg. Rate	1961 Pop. Rate
189. Dyersburg, Tenn.	0	0	2	0.0	0.0
190. Cambridge, Md.	0	0	0	0.0	0.0
191. Central Falls, R. I.	0	0	0	0.0	0.0
192. Charles City, Iowa	0	0	0	0.0	0.0
193. Conneaut, Ohio	0	0	0	0.0	0.0
194. Rock Springs, Wyo.	0	0	0	0.0	0.0
195. Hornell, N. Y.	0	0	0	0.0	0.0
196. Warrensville Hts., Ohio	**0**	**1**	**0**	**0.0**	**0.0**
197. Bemidji, Minn.	0	0	0	0.0	0.0
198. River Forest, Ill.	0	0	0	0.0	0.0
199. Marinette, Wis.	0	0	1	0.0	0.0
200. Moscow, Idaho	0	0	0	0.0	0.0
201. River Rouge, Mich.	**0**	**1**	**1**	**0.0**	**0.0**
202. Westlake, Ohio	0	0	1	0.0	0.0
203. Monmouth, Ill.	0	0	0	0.0	0.0
204. Cadillac, Mich.	0	0	0	0.0	0.0
205. Brigham City, Utah	0	0	0	0.0	0.0
206. Two Rivers, Wis.	0	0	0	0.0	0.0
207. Monroe, N. C.	0	0	0	0.0	0.0
208. Ecorse, Mich.	0	0	0	0.0	0.0
209. University Hts., Ohio	0	0	0	0.0	0.0
210. Sulphur, La.	0	0	1	0.0	0.0
211. Fort Thomas, Ky.	0	0	0	0.0	0.0
212. Menominee, Mich.	0	0	0	0.0	0.0
213. Stoughton, Mass.	0	0	0	0.0	0.0
214. Covington, Va.	0	0	0	0.0	0.0
215. Lake Forest, Ill.	0	0	0	0.0	0.0
216. Milford, Mass.	**0**	**1**	**1**	**0.0**	**0.0**
217. Glastonbury, Conn.	0	0	0	0.0	0.0
218. Ironwood, Mich.	0	0	0	0.0	0.0
219. Auburn, Mass.	0	0	0	0.0	0.0
220. Winchester, Conn.	0	0	0	0.0	0.0
221. N. College Hill, Ohio	0	0	0	0.0	0.0
222. Hurst, Tex.	0	0	1	0.0	0.0
223. Beacon, N. Y.	0	0	0	0.0	0.0
224. La Salle, Ill.	**0**	**1**	**0**	**0.0**	**0.0**
225. Webster, Mass.	0	0	0	0.0	0.0
226. Ridgefield Park, N. J.	0	0	0	0.0	0.0
227. Western Springs, Ill.	0	0	0	0.0	0.0
228. Brooklyn, Ohio	0	0	1	0.0	0.0
229. Derby, Conn.	**0**	**1**	**0**	**0.0**	**0.0**
230. Stonington, Conn.	0	0	1	0.0	0.0
231. Amherst, Mass.	0	0	0	0.0	0.0
232. Killingly, Conn.	0	0	1	0.0	0.0
233. Mercedes, Tex.	0	0	0	0.0	0.0
234. Farmington, Conn.	**0**	**1**	**0**	**0.0**	**0.0**
235. Donora, Pa.	0	0	0	0.0	0.0
236. Rolling Meadows, Ill.	0	0	0	0.0	0.0
All cities in this group				1.4	7.2
237. Walla Walla, Wash.	1	0	0	4.2	24.5
238. Fort Myers, Fla.	1	0	0	4.2	26.7
239. Longview, Wash.	1	0	0	4.2	25.8
240. Merced, Calif.	1	0	0	4.5	29.9
241. Los Altos, Calif.	1	0	1	4.5	30.5
242. Glendora, Calif.	1	0	1	4.6	28.8
243. Adrian, Mich.	1	0	0	5.3	29.6
244. Winona, Minn.	1	0	0	5.4	24.1
245. North Platte, Neb.	1	0	0	5.4	34.9
246. Griffin, Ga.	1	0	0	5.4	27.6
247. San Fernando, Calif.	1	0	0	5.6	37.3
248. Butler, Pa.	1	0	0	5.6	28.6
249. Emporia, Kan.	1	0	0	5.9	33.0
250. Tempe, Ariz.	1	0	2	6.2	24.1
251. Augusta, Maine	1	0	0	6.3	27.6
252. Elmwood Park, Ill.	1	0	0	6.3	25.1
253. Marietta, Ohio	1	0	0	6.4	35.7
254. Connersville, Ind.	1	0	1	6.4	33.9
255. Morristown, N. J.	1	1	0	6.5	33.9
256. Redding, Calif.	1	0	0	7.0	46.9
257. Peru, Ind.	1	0	0	7.0	41.4
258. Arkansas City, Kan.	1	0	1	7.1	42.0
259. Alpena, Mich.	1	0	1	7.3	40.8
260. Marquette, Mich.	1	0	0	7.4	30.3
261. Norfolk, Neb.	1	0	0	7.5	45.8
262. Mt. Vernon, Ill.	1	0	0	7.9	38.5
263. Shelton, Conn.	1	0	0	8.0	33.0
264. Canton, Ill.	1	0	1	8.0	44.1
265. Astoria, Ore.	1	0	0	8.4	53.6
266. Branford, Conn.	1	0	0	8.8	36.1
267. Southington, Conn.	1	1	0	9.1	26.3
268. North Olmsted, Ohio	1	0	0	9.1	36.8
269. Henderson, N. C.	1	0	0	9.3	47.2
270. Highland Park, Tex.	1	0	0	9.5	57.7
271. Virginia, Minn.	1	0	0	9.9	42.9
272. Du Bois, Pa.	1	0	1	11.0	56.1
273. Salisbury, N. C.	2	0	0	11.0	56.3
274. Aberdeen, S. D.	2	0	0	11.3	51.9
275. Maumee, Ohio	1	0	0	11.3	49.6
276. North Chicago, Ill.	1	1	0	11.8	29.3
277. Jennings, La.	1	0	0	11.9	50.4
278. Bellaire, Ohio	1	0	0	12.2	52.2
279. Watertown, Conn.	1	0	0	14.0	40.5
280. New Canaan, Conn.	2	0	0	17.3	88.9
281. Albany, Calif.	2	0	0	17.9	81.1
282. Owosso, Mich.	7	1	0	44.1	247.1
CANADIAN CITIES					
Lethbridge, Alta.	0	0	0	—	0.0
Medicine Hat, Alta.	0	0	0	—	0.0
Red Deer, Alta.	0	0	1	—	0.0
Calgary, Alta.	1	1	2	—	3.3
Toronto, Ont.	15	18	15	—	6.1
Montreal, Que.	14	10	7	—	7.6
Edmonton, Alta.	3	4	1	—	8.0
Hamilton, Ont.	4	5	5	—	9.1
London, Ont.	4	0	0	—	23.6

MOTOR VEHICLE DEATHS AND INJURIES BY STATES 1961 and 1960

Seventeen states and the District of Columbia have reported their death and injury experience for the first month of 1961.

The table below shows all of the injury data reported by each state, but little information is available on precisely what injuries are included in each state's tabulation.

Differences in the ratio of injuries to deaths probably reflect primarily differences in the extent to which all injuries are reported. Other factors are undoubtedly involved, such as: (1) a few states omit some or all of the injuries in urban accidents; (2) there are large differences between states in the proportion of travel which is in urban area (the injury-death ratio for urban accidents is about four times the ratio for rural accidents).

The question of what injuries are being reported applies with equal force to the per cent change in injuries from 1960 to 1961. Any tightening up of police administration, any emphasis on "get all the injuries" is almost certain to bring about an increase in reported injuries, but probably only in minor ones. Similarly, instructions to "skip the scratches" probably would result in a decrease in recorded cases in many states. Introduction of financial responsibility laws has been observed to increase reported injuries sharply. Even the public's increased claims-consciousness is regarded by many people as an element in the growing number of injuries reported. With such factors operating to destroy comparability, indicated changes in the number of injuries should not be considered as reliable.

	Months Reported	Deaths†† 1961	Deaths†† 1960	Injuries†† 1961	Injuries†† 1960	% Change 1960 to 1961 Deaths	% Change 1960 to 1961 Injuries	1961 Ratio of Injuries to Deaths
TOTAL U.S.	**	786#	859#	24,372	21,957	— 8#	+ 11	31
Ala.	1	65	47	315†	401†	+ 38	— 21	5
Ariz.								
Ark.	1	31	24	404	251	+ 29	+ 61	13
Calif.								
Colo.								
Conn.								
Del.								
D. of C.	1	0	10	487	648	—100	— 25	¶¶
Fla.								
Ga.	1	58	87	1,351	1,505	— 33	— 10	23
Idaho								
Ill.								
Ind.								
Ia.								
Kans.								
Ky.								
La.	1	60	51	654†	613†	+ 18	+ 7	11
Maine	1	9	12	533	484	— 25	+ 10	59
Md.								
Mass.								
Mich.	1	91	128	6,602	6,104	— 29	+ 8	73
Minn.	1	60	48	2,596	1,062	+ 25	+144	43
Miss.								
Mo.	1	78	89	888	913	— 12	— 3	11
Mont.								
Neb.								
Nev.								
N. H.	1	3	6	745	554	— 50	+ 34	248
N. J.								
N. M.	1	19	34	480	431	— 44	+ 11	25
N. Y.								
N. C.	1	74	80	2,057	1,970	— 8	+ 4	28
N. D.								
Ohio								
Okla.								
Ore.	1	31	26	1,276	1,237	+ 19	+ 3	41
Pa.								
R. I.								
S. C.	1	45	66	969	874	— 32	+ 11	22
S. D.	1	8	14	208	185	— 43	+ 12	26
Tenn.								
Tex.	1	153	129	4,599	4,537	+ 19	+ 1	30
Utah								
Vt.	1	1	8	208	188	— 88	+ 11	208
Va.								
Wash.								
W. Va.								
Wis.								
Wyo.								
V. I.¶	1	0	1	14	13	—100	+ 8	¶¶

†Rural injuries only.

††All figures are preliminary. To insure proper comparisons, 1960 figures cover the same reporting period as those for 1961.

*Less than .5%.

**Death and injury totals cover reports for all months indicated in this column.

#Death totals and changes differ from national figures because those shown here are based on the states and months for which injury data are reported.

¶Virgin Islands.

¶¶Ratio cannot be calculated due to 0 in 1961 death total.

Safety Library

From Page 4

Highways

Annual Report. Ohio Turnpike Commission, 1960. 1961. 36pp. Ohio Turnpike Commission, 682 Prospect St., Berea, Ohio.

Four Lanes to Six: Three Giant Steps. *Engineering News-Record.* Feb. 9, 1961, p. 40.

The Nation's Highway Program: A Comprehensive Review of the Federal-Aid Highways. 1960. 24pp. Transportation and Communication Department, Chamber of Commerce of the United States, Washington 6, D. C.

Inspection

Annual Vehicle Check Slated for May-June. *Automotive News.* Mar. 6, 1961, p. 47.

Legislation

Digest of Motor Laws. 1961. 168pp. American Automobile Association, Washington 6, D. C.

1960 Automobile Legislation. *Best's Fire and Casualty News.* February, 1961, p. 20-24.

Lighting

More Lights—Fewer Fatalities. *Street Engineering.* March, 1961, p. 26.

Night Driving

Engineers Probe Problems of Visibility to Reduce Dangers of Nighttime Driving. *Highway Traffic.* February, 1961, p. 16, 18.

A Little Light on Night Driving. Arthur R. Forster. *American Youth.* March-April, 1961, p. 8-11.

Parking

Little Rock Attacks Parking Problem. *Street Engineering.* March, 1961, p. 36-37.

Zoning and Parking Relief. Part two. Oscar Sutermeister. *Traffic Digest and Review.* February, 1961, p. 23-26.

Pedestrians

The Toronto Pedestrian Crossover Program. Morris Rotman. *Traffic Engineering.* February, 1961, p. 11-16, 54.

Police

State Patrols Ease Winter Hazards. *Traffic Digest and Review.* February, 1961, p. 20-22. (Reprinted from Dec. 1960 issue of Journal of American Insurance.)

Programs

Road Safety—the Pattern of Future Development. *The British Journal of Industrial Safety.* Winter, 1960, vol. 5, no. 43, p. 79-83.

A Salute to a Magnificent Safety Record. *Commercial Car Journal.* February, 1961, p. 114.

Seat Belts

Misconception About Automobile Accidents. *Highway Traffic.* February, 1961, p. 17.

Signs and Signals

Dependable Traffic Signal Lamps Are a Must! John B. White. *Municipal Signal Engineer.* January-February, 1961, p. 28-29.

New Technique in Traffic Signal Coordination. Robert A. McNeil. *Municipal Signal Engineer.* January-February, 1961, p. 34-37.

A Step Toward Uniform Signing. *Traffic Digest and Review.* February, 1961, p. 7-8, 30. (Standard signs, signals and markings as specified in the revised manual must be used on all of the nation's federal-aid highway systems.)

Traffic Control

Emergency Traffic Control System Increases Fire Apparatus Movement Safety. Michael A. Connavino and Peter J. Kuhn. *Fire Engineering.* February, 1961, p. 126, 149-150.

Green Band Clearance for Emergency Vehicles in Greensgoro, N. C. Central Business Area. Sanford H. Smith. *Municipal Signal Engineer.* January-February, 1961, p. 30-32.

AN EXCITING NEW APPROACH TO DRIVER TRAINING AND SAFETY EDUCATION

Positive attitudes toward highway safety are successfully developed via this completely new visual training approach never before utilized in the driver training field.

The DRIVER SAFETY TRANSPARENCY SERIES is a complete, effective and amazingly versatile training program presented with an overhead projector. *It is invaluable for initial training, re-training and attitudinal training of teen-age, adult and professional drivers.*

The DRIVER SAFETY TRANSPARENCY SERIES utilizes large, heavy gauge multi-colored plastic transparencies with attached overlays to illustrate progressive traffic situations and safe driving techniques. Overhead projection, from the front of the room, enables instructors to face audiences, conduct group discussion and observe reactions.

Educational institutions, industry, insurance companies, government agencies, the armed forces, civic groups and others interested in promoting highway safety will find the DRIVER SAFETY TRANSPARENCY SERIES to be an indispensable new addition to their driver safety training programs or driver education classes.

For complete information and illustrated literature, write to . . .

THE COMPLETE SET INCLUDES 106 BASIC TRANSPARENCIES, 144 OVERLAYS, DETAILED INSTRUCTION MANUAL AND STURDY CARRYING CASE.

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Circle Item No. 3—Reader Service Card

Vision

How to Cope with "Car Vision." *Health.* March, 1961, p. 33-35.

ADDRESSES OF MAGAZINES MENTIONED

American Youth
General Motors Bldg.
Detroit 2, Mich.

Automotive News
Slocum Publishing Co.
2666 Penobscot Bldg.
Detroit 26, Mich.

Best's Fire and Casualty News
75 Fulton St.
New York 38, N. Y.

The British Journal of Industrial Safety
52 Grosvenor Gardens
London, S. W. 1

Chicago Traffic Safety Review
20 N. Wacker Dr.
Chicago 6, Ill.

Commercial Car Journal
Chestnut & 56th Sts.
Philadelphia, Pa.

Engineering News-Record
330 W. 42nd St.
New York 36, N. Y.

Fire Engineering
305 E. 45th St.
New York 17, N. Y.

Health
212 East Ohio St.
Chicago 11, Ill.

Highway Traffic
601-3 Republic Bldg.
Louisville 2, Ky.

Municipal Signal Engineer
130 W. 42nd St.
New York 36, N. Y.

Petroleum Week
330 W. 42nd St.
New York 36, N. Y.

Popular Science Monthly
353 Fourth Ave.
New York 10, N. Y.

Railway Age
Simmons-Boardman Co.
Orange, Conn.

Street Engineering
22 W. Maple St.
Chicago 10, Ill.

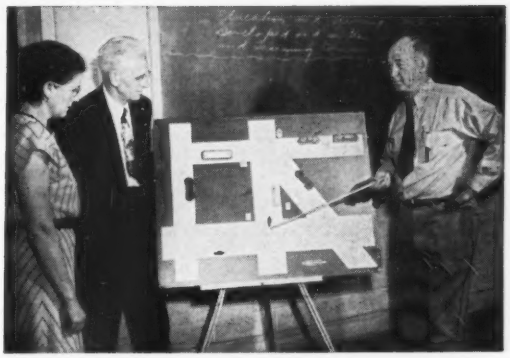
Taxicab Industry/Auto Rental News
200 W. 57th St.
New York 19, N. Y.

Traffic Digest and Review
1804 Hinman Ave.
Evanston, Ill.

Traffic Engineering
2029 K St., N. W.
Washington 6, D. C.

Wood Preserving News
111 W. Washington St.
Chicago 2, Ill.

Circle Item No. 4—Reader Service Card



THE "EYES" HAVE IT . . . .

Here is an aid that has proven practical in teaching visually the principles of safety. It's simple, effective and works wonders in teaching your drivers.
The MAGNO SAF-T BOARD is the result of studies by outstanding safety instructors and engineers. Safety directors, traffic managers, driving instructors, insurance agents and adjusters get a clear picture of how accidents occurred visually by reconstruction of conditions.

It is now being used from coast to coast by fleet owners, insurance and public utility companies, colleges and schools, and many other concerns interested in public safety. Consisting of a BOARD with typical street intersections on one side. The other side is a BLACKBOARD on which any street or road situation can be drawn with chalk and then erased. It has scale models of vehicles, traffic markers and accessories that can be placed in any conceivable traffic situation.

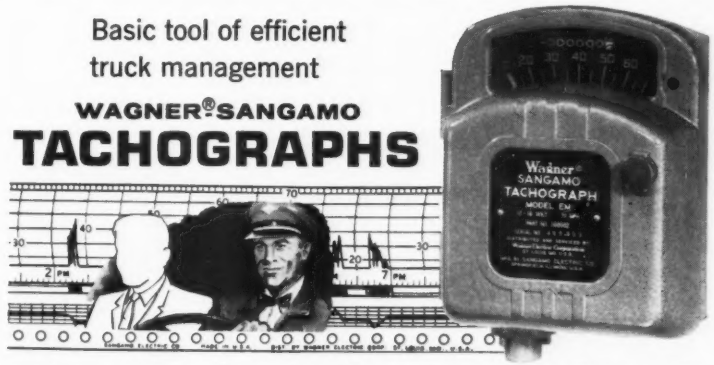
Write for our folder. It contains full information.

MAGNO SAF-T BOARD© **EMIGSVILLE, PA.**

Basic tool of efficient truck management

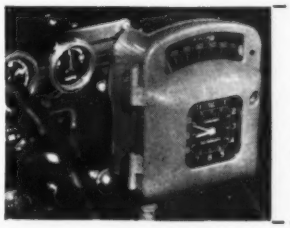
WAGNER® SANGAMO

TACHOGRAPHS



put a supervisor in the cab of each truck

When you equip your trucks with Tachographs, *you've put a supervisor in each cab on every trip for only a few cents a day per truck.* For Tachographs graphically record every mile, every foot of a truck's run from start to finish . . . pinpoint all starts, stops, idling time and speeds on 12 or 24 hour disc charts, or on 8, 15, or 31 day strip charts. This "silent supervision" helps keep your trucks rolling safely, economically . . . pays off in greater fuel and tire savings, encourages good driving habits, helps cut unscheduled stops, lets you plan better routes, and lowers operating and maintenance costs. Wagner-Sangamo Tachographs are made in the U. S. A. Parts and service are readily available. For details, mail the coupon.



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(Number)

WS61-3

Circle Item No. 5—Reader Service Card

Experts Meet

From Page 17

nal displacement of the chassis and body. This is the basis of the method.

Royal Society for the Prevention of Accidents—Great Britain—Since 1934, all new drivers have been required to pass a test operated by official examiners of the Ministry of Transport. During the year 1959, 1,414,947 driving tests were undertaken including retests of previous failures.

Approximately 50 per cent of the learner-drivers concerned had received professional instruction. The remaining 50 per cent of learner-drivers had received their instruction from friends, relatives, or the many part-time instructors who undertake weekend and evening work. (Learner-drivers, except motorcyclists, always have to be accompanied by a qualified driver.) There are no legal requirements or controls laid down for driving instructors beyond the need for them to be holders of an ordinary driver license.

V. Puri—India—In India driving training is imparted through three different methods, i.e. through government controlled organizations, privately owned driving training schools and by private individuals. All states in India control and regulate the commercial (private) driving schools.

T. Trafikk—Norway—Under Norwegian law, a motoring-school instructor must have some experience of the motor repair trade or else have been to a school of technology. He must also pass a certain test arranged by the state testing stations. The National Union of Authorized Motoring-School Instructors has—in cooperation with the National Road Safety Council—drawn up a number of refresher courses for motoring-school instructors.

J. Wojciechowski—Poland—In 1952, the number of drivers in Poland totalled 424,000. In 1955, the figure amounted to 612,000.

At the beginning of 1954, new regulations for driving licenses came into force. . . . training was made compulsory both for professional and non-professional drivers. Since then, driving schools have become very numerous in consequence of the rapid growth of private motoring.

On completion of training, applicants must pass a test which comprises the regulations and the nature, operation and the driving of the vehicle. Professional drivers must be able to prove that they have fairly extensive knowledge of the construction, servicing and operation of the vehicles. Driving instructors have to take a higher class test and only after they show evidence of their knowledge are they allowed to teach.

Kungl Automobil Klubben—Sweden—In Sweden, the driving of a motor car or riding of a motorcycle cannot be taught professionally without special permission. Driving schools must be headed by a responsible teaching staff employed by the school and must also have permits.

American Automobile Association—United States—There are probably at least 1,500 commercial driving schools in operation. There is no accurate national count. Over 50 AAA Clubs operate driving schools, using an average of four cars per school during the summer months. Only a few of the 50 states license or control commercial driving schools.

Real Automovil Club De Espana—Spain—Before setting up a private driving school permission must first be obtained from the Department of Industry. The General Department of Industry imposes on all schools a standard set of rules which it considers the minimum requirements.

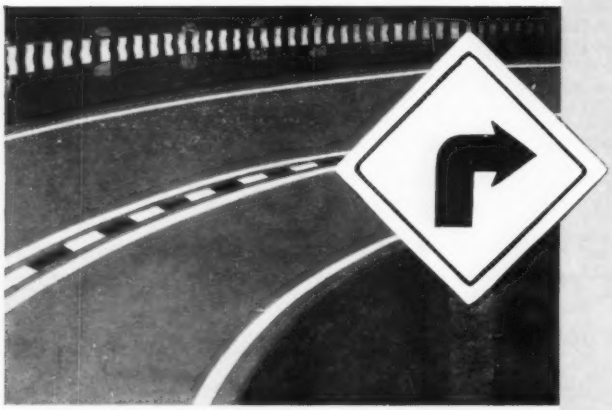
Legislation

France—A decree dated August, 1959, places all driving schools under the authority of the prefet, who has to grant permission to run the school. Such permission, which is strictly personal, is granted after an advisory opinion has been expressed by a professional departmental commission.

To Page 47

TURN TO . . .

FLEX-O-LITE



. . . FOR LEAD-FREE REFLECTIVE BEADS

Highway signs and markers reflectorized with whitest-white LEAD-FREE Flex-O-Lite Beads leap from the darkness to contribute greater safety for the motoring public . . . greater satisfaction and economy for you.

FLEX-O-LITE PRODUCTS

No. 831 Lead-Free High Index of Refraction Beads and Sign Kits—Best for white and yellow signs • UB 68 Lead-Free Medium Index of Refraction Beads and Sign Kits—For darker colors • Type H Safety Spheres—For use where ultra-high brilliance is required • Traffic Beads: Free-Flowing, Moisture-Proof and Standard—For highway center lines and edgeline markings • All-Weather Airport Runway Beads • Also—Sign Bead Dispensers, automatic and semi-automatic types.

Write for catalog.

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Flex-O-Lite of Canada, Ltd., P. O. Box 216, St. Thomas, Ont., Canada

Circle Item No. 6—Reader Service Card

NEW... SAFETY EQUIPMENT

Publication of product announcements in this section should not be construed as endorsement or approval by the National Safety Council.

Traffic Safety Cones

Traffic cone markers in bright fluorescent red for high visibility, and made of one-piece rotationally-cast plastisol for longer life, have been introduced by Jobet Industries, Inc., Oshkosh, Wisconsin.

Plastisol construction assures greater damage resistance, good abrasion resistance. Jobet cones are almost impossible to tear or cut and are also resistant to gasoline, oil, tar and paint—which can be easily cleaned off thus extending the useful life of the cones.

Jobet cones are 18″ high, tapering from a 2⅛″ top diameter to 8″ bottom diameter on an 11″ square base. Twenty-eight inch cones are also available.

The fluorescent red has the welcomed ability to reflect light. If lighted from within, the brilliant red cone can be seen from great distances, making them ideal lighted markers for safety islands, drive approach areas, airport taxi and loading areas. They can be lighted from within with dry cell batteries for night use by road workmen or police departments.

Jobet Industries, Inc., 447 W. South Park Ave., Oshkosh, Wis. (Item 41)

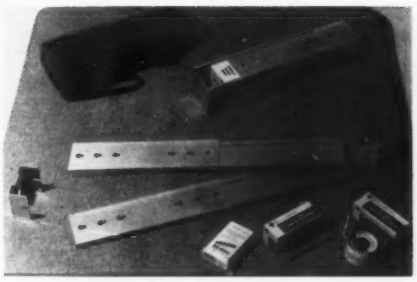
Safety Vest

A fluorescent blaze orange vest for traffic patrolmen and other personnel involved in traffic signaling has been developed by the American Optical Company's Safety Products Division.

Made of a plastic impregnated material, the garment is perforated for ventilation and will fit all persons. The vest has white phosphorescent stripes for added protection. Elastic straps on each side and fabric tapes on the front are added for adjustment.

AO determined through extensive testing that blaze orange is the safest color for day and night work. The blaze orange attracts maximum attention during the day time. The phosphorescent white stripes give added protection after dark.

American Optical Co., Southbridge, Mass. (Item 42)



First Aid Kits

The Redi-Splint First Aid Kit, featuring an aluminum container that converts into a splint set within seconds, is the first departure from the old-fashioned kits that required splints to be carried separately.

Now, when an emergency arises, the Redi-Splint Kit can be immediately disassembled, first aid supplies deposited in the container bag, and a splint constructed in a matter of seconds.

In addition to regular splints, traction splints can be made with Redi-Splint. Traction splints are favored in many cases of broken homes.

Redi-Splint First Aid Kit is made of extruded aluminum, making it extra strong and light weight. It will never rust, and can always be kept clean and sanitary with soap and water.

The kit is available with a full complement of first-aid supplies and is enclosed in an attractive water-repellent canvas container for easy handling and storage.

Rock Royal Corp., 120 S. La Salle St., Chicago 3, Illinois (Item 43)

Auto Seat Belt

An auto seat belt with a new-type metal-to-metal buckle and using heavy all-nylon webbing has been added to the seat belt line of Hinson Manufacturing Company, Waterloo, Iowa.

"The new belt meets and exceeds the strength and impact requirements outlined in the Federal Specification JJ-B-00185, the Society of Automotive Engineers recommendations, and Civil Aeronautics Administration service order C-22c," said H. D. Leighty, Hinson sales manager.

"It was designed for greater strength and riding comfort as well as ease of installation and use.

"The metal-to-metal buckle permits quicker locking and unlocking."

The new belt is available in both regular length and extra long length. It may be had in a choice of six colors —blue, green, flame, black, tan and grey.

Hinson Mfg. Co., Waterloo, Iowa (Item 44)

For More Information—Circle Item on the Reader Service Postcard

SAFETY PRODUCT LITERATURE

Traffic Signs

Literature is available describing fiberglass traffic signs that will reportedly outlast other types of signs. Manufactured of fiberglass reinforced polyester plastic panels. Messages are applied with a special epoxy resin paint which is said not to peel, chip, chalk or fade. The manufacturer states that these signs are inert to acid, industrial fumes and all climatic conditions. Fiberglass Sign Co., Box 3042, Corpus Christi, Texas.

For more details circle No. 81
on enclosed return postal card.

Fog Light

This louvered light is said to reduce glare back in fog, and to filter 100 ft. in 90% fog density. Under normal driving conditions beam extends up to 250 ft. ahead of truck. Per-Lux Weather Light, Inc.

For more details circle No. 82
on enclosed return postal card.

Brake Lever Lock

This hydraulic accessory is said to assure braking pressure while vehicle is parked. Manually operated, the Mico Lever Lick does not interfere with normal brake operation. To set, the operator raises lever and steps on foot pedal. The manufacturer claims it will work on all hydraulic systems regardless of make, model, or year. Minnesota Automotive, Inc.

For more details circle No. 83
on enclosed return postal card.

Reflector Lights

These truck and trailer markers snap into 4⅛ in. hole for flush mounting without screws, clips or retainers. Three metal tension snaps hold light fixture in place. A neoprene gasket protects it from shock, vibration. Auto Lamp Mfg. Co., ...

For more details circle No. 84
on enclosed return postal card.

Hand Protection

Literature is available describing this asbestos glove that fits either hand. Just the thing for protecting the hand from hot engine manifolds while removing spark plugs. The Electric Autolite Co., ...

For more details circle No. 85
on enclosed return postal card.

Reflector Flare

Featured are lens molded of non-fading plastic, which are said to exceed all state, ICC and SAE specifications. A heavy gauge, full weight base, with rubber contact points all four corners. The flags are of ICC size with jointed steel staffs. The carrying case is of formed steel with red baked enamel finish, hinged cover, positive locking device. All parts are heavily plated with no paint to chip. Anthes Division, Gleason Corp., Fort Madison, Iowa.

For more details circle No. 86
on enclosed return postal card.

Traffic Control Aid

Designated the ET150, this 2-phase, full-actuated, volume-density controller balances "green time" at busy 2-street intersections for more efficient traffic flow. Full details and specifications available from Eagle Signal Co., Municipal Div., Moline, Illinois.

For more details circle No. 87
on enclosed return postal card.

Traffic Signs

A catalog of quality street name assemblies and embossed traffic control signs, designed for easy readability and long services is obtainable from Micro-Flex Co., Inc., 1824 E. Second, Wichita 14, Kansas.

For more details circle No. 88
on enclosed return postal card.

Traffic Markers

These lane delineators are said to provide long life in any climate. Manufactured as a tube of synthetic rubber and available in two sizes, 2½" x 16" and 4" x 20". Of tapered design with a thicker wall at base insuring solidity, and a thinner wall at top offering less resistance and giving the marker its "snap-back" action. As an added safety factor these markers have a virtually flat base thereby leaving no heavy metal base to divert a driver's steering control if accidentally driven over Nationwide Traffic Engineering Products Corp., 2535 Mt. Carmel Avenue, Glenside, Pa.

For more details circle No. 89
on enclosed return postal card.

Fluorescent Danger Flags

These danger flags for street, highway and plant use are a brilliant flame red, providing higher visibility at a distance. The fluorescent vinyl is permanently bonded to both sides of the nylon base fabric. Literature is available from the Albert W. Pendergast Safety Equipment Co., Tulip & Longshore Sts., Philadelphia 35, Pa.

For more details circle No. 90
on enclosed return postal card.

Traffic Hazard Marking Kit

All that is necessary to satisfactorily reflectorize and delineate traffic hazards are included in this kit. Catalog V-160 available from Catphote Corp., Toledo 10, Ohio gives full details.

For more details circle No. 91
on enclosed return postal card.

Hydraulic Power Brake

Designed to maintain a high degree of efficiency for braking systems, this small safety unit attaches remote or directly to the existing master cylinder, and is said to provide improved braking even on systems already using vacuum-type power brakes. The unit is self-activating and features simplicity and ease of installation. The manufacturer claims that the "grabbing effect" common to vacuum units is reduced, and at higher speeds, a more perfect and reliable braking "feel" and control is achieved.

For more details circle No. 92
on enclosed return postal card.

Unique Highway Safety Sign

This portable, battery-operated safety device has letters, almost a foot high, which rapidly flash on and off. A red reflective material forms a background for the letters so that the safety sign will continue to be of some warning, even if the batteries should fail. Each letter of the sign is a separate plastic-covered glass sandwich which contains a transparent, electrically conductive film and a special phosphor. When electricity is applied, the letter glows. There are no filaments, tubes or vapors, and practically no heat is produced. Westinghouse Electric Corp., Box 2278, Pittsburgh 30, Pa.

For more details circle No. 93
on enclosed return postal card.

Traffic Control

Solve your safety problem with this device for one man speed enforcement. Features are: provable accuracy, automatic operation, one man control, minimum area for error. Write today. Traffic House, Inc., Marshall 2, Mich.

For more details circle No. 94
on enclosed return postal card.

Emergency Resuscitator

Minuteman Folder J-1 describes this combined resuscitator, inhalator and aspirator. Compact (24½" x 8¾" x 7¾") and weighing only 28 pounds. With an extra Midget attachment it will resuscitate two patients and aspirate a third simultaneously. Pressures are adjustable from adult to infant. Stephenson Corp., Red Bank, New Jersey.

For more details circle No. 95
on enclosed return postal card.

Wheel Blocks

Hold heavy trucks and trailers securely with ease. Prevent accidents caused by vehicle moving away from dock while loading or unloading. Constructed of cast steel, the wheel blocks are rugged, strong and practically indestructable. An illustrated catalog is available. Calumet Steel Casting Corp., 1646 Summer Street, Hammond, Ind.

For more details circle No. 96
on enclosed return postal card.

Experts Meet

From Page 44

Italy—In accordance with a decree of the President of the Republic of June, 1959, driving schools must obtain permission from the Ministry of Transport, under whose control they are operated. The director of the school and the instructors must be in possession of the necessary permits and have passed special examinations.

Federal Republic of Germany—Only an instructor holding a special driving license is entitled to give driving lessons. The teaching must be theoretical as well as practical. The instructor must seize every opportunity to impress upon his pupil a sense of his responsibilities and the need for considerate behavior in road traffic.

Theoretical teaching: eight lessons, each consisting of two 45-minute periods of practical teaching: eight hours instruction behind the wheel, on eight different days. At least one hour's instruction behind the wheel must be given at night and at least one hour in a large town—unless the nearest large town is more than 50 kms. away.

Refresher Courses

Automobile Club Von Deutschland—Germany—In January, 1956, the transport industry founded a German school for long-distance drivers in Rieneck bei Gemünden am Main (Spessart). The aim of this school is not so much to give long-distance drivers the initial training they need in order to follow their profession, as to give advanced instruction to those who are already operating as long-distance drivers.

Royal Society for the Prevention of Accidents—Great Britain—There is no legal requirement for drivers to undertake refresher courses of any description, though the courts may require a driver, convicted of careless or dangerous driving, to undertake and pass a further Ministry of Transport driving test before his or her license is restored. There is some demand among the driving public for refresher courses in advanced driving technique. . .

Institute of Advanced Motorist (I.A.M.): This is a non-commercial organization with a controlling council on which the Ministry of Transport is represented. Its aim is to promote an interest in a higher standard of safe driving and technical competence by providing voluntary tests of about two hours' duration, conducted from various centers by examiners who are recruited from ex-police driving personnel.

RoSPA House: The Royal Society for the Prevention of Accidents maintains a permanent road safety training center in London, which is very comprehensively equipped with visual aids and driving simulators and is staffed by a team of instructors, themselves trained at the center.

T. Trafikk—Norway—Up to now, refresher courses have only been arranged for holders of driving licenses, and these courses are voluntary. In Norway, a driving license is valid for five years at a time, and then must be renewed. It is now becoming more and more common for holders of driving licenses to attend these courses, which are arranged at the motoring schools, before they have their licenses renewed.

American Automobile Association—United States—Many communities in the United States have established traffic schools which offer refresher courses for drivers and pedestrians. These schools were originally known as violator's schools or traffic violator's schools.

F. N. Platt—United States—Training programs for the experienced driver exist in several areas including fleet operations, military service, industrial safety plans, commercial refresher and advanced training

Turn Page

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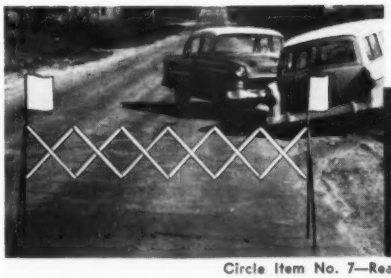

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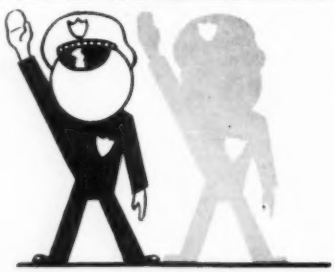

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Experts Meet

From Page 47

schemes, schools for traffic law violators and numerous safety organization programs.

It is an economic necessity for companies that operate fleets of vehicles to carry on training and safety programs to reduce their costs of accidents and to lower insurance rates. These expenses often may be the difference between profit and loss to a trucking company.

Training of School teachers

Royal Society for the Prevention of Accidents—Great Britain—Education in Great Britain has a tradition of independence and it is not easy to summarize methods of training teachers in the skills of giving instruction in a subject which is not compulsory and which is usually part of the wider field of health education. There is no legislation specifying what subjects should be taught in the schools of Great Britain, nor about road safety instruction in general; but the Ministry of Education (in respect to England and Wales) and the Secretary of State for Scotland have urged all local education authorities and schools to see that road safety instruction is a regular and definite part of the curriculum.

R. Logelin—Luxembourg—Courses in road safety have been organized officially in primary schools since the school year 1958-59.

Assistant Commissioner of Transport—New Zealand—In New Zealand the central government employs a corps of special instructors who visit all schools twice each year, giving instruction in a form appropriate to each age group, ranging from kindergarten schools (3-4 year olds) to senior pupils of post-primary schools (17 year olds). These instructors wear uniforms, and have the powers of traffic law enforcement officers. Four of them are women.

T. Trafikk—Norway—In Norway, there is no law governing the training of schoolteachers in road safety matters, but in the so-called standard plan for Norwegian teachers' training colleges it has now been decided to include a program on this subject. From now on, every teacher completing a course at a training college will have been instructed on how to teach road safety to school children.

Touring Club—Suisse—Switzerland—Lessons in road safety at school in Switzerland come under cantonal jurisdiction. Responsibility is divided between the police and the teachers.

American Automobile Association—United States—All fifty states in the United States require that road safety, or safety education, as it is more frequently referred to in this country, must be one of the subjects taught in all public schools.

Automobile Club D'Italia—Italy—With the approval of the Ministry of Public Education, the Automobile Club d'Italia has organized, on an experimental basis, 14 "Holiday Courses on Road Safety" for elementary school teachers.

The Accident-Prone Driver

R. A. McFarland—United States—Taken at face value, the results from the statistical approach suggest that the phenomenon of accident proneness . . . is of considerably less importance in the total accident picture than originally held.

The usual findings have been that the accident distributions for various groups differ only slightly, or not at all, from the distributions which would be expected from chance alone. Moreover, it has not been convincingly demonstrated that an appreciable number of people tend to have more accidents than others under conditions of equal exposure. There is also insufficient evidence that the same persons tend to have repeated accidents in successive time periods to be able to predict future accident occurrence on the basis of the past history of accidents in individuals.

There are also grave theoretical and methodological doubts concerning the theory developed from clinical studies, that accidents are motivated in the sense that they serve emotional needs and that there is a definable accident-prone personality type. Clinical studies have, however, led to the concept that 'a man drives as he lives' which has received some objective external verification. These studies, and other recent ones, have suggested that traits of personality and typical response of patterns of personal adjustment may be more useful in identifying one group of accident-repeaters.

Safety Belts and Safety Harness

International Technical Committee—Experience, particularly in Sweden where *nearly 60 per cent of all vehicles are equipped with safety belts*, seems to suggest that the diagonal sash or shoulder type belt is to be recommended. This type of equipment combines simplicity with efficiency. Obviously there can be no question of making a simple and practical safety belt which will resist any load, however heavy . . . In Sweden, dynamic resistance tests are made by stopping suddenly a dummy weighing 60 kg. (135 lb. approximately) travelling at 25 m.p.h. (40 km.p.h.).*

In France, the unofficial technical specification (**) is based on a static test under load of 1,500 kg. (3,300 lb.), which is the equivalent of the force of a body weight 75 kg. (165 lb.) under a deceleration of 20 *g*.

The webbing used must have a certain 'elongation' property under load so that it cushions the force of the impact. However, it must obviously not stretch indefinitely, otherwise the body would hit the windscreen. Furthermore, at the end of the collision, the energy stored in the strapping must not be released in snapping the wearer back into his seat, creating a risk of 'whiplash' injuries to neck or spine. This rules out the use of such fittings as spring shock absorbers; elastic webbing is also unsuitable.

The value of safety equipment not only in an accident, but also in cases of violent braking, is proved by many practical tests with dummies, by far too many actual case histories, and by the wide experience gained in America and particularly in Sweden, where today several hundreds of thousands of vehicles carry this form of protection.

Should it be made compulsory to install safety equipment in passenger cars? It has been proved in Sweden that compulsion is not necessary. Moreover, if the equipment is not worn or if worn incorrectly it will not give any protection. To be truly effective, the safety equipment must be freely accepted by the person concerned.

Prof. Onweleen — Netherlands — By far the greater part of the publications on the subject, namely those of a statistical or psychological nature, are found in American literature. Many European papers appear to be based on or to have conformed to the different American views. Naturally, such views relate to American traffic conditions.

Therefore original research work within one's own territory must be considered indispensable, the more so because at present it is not always possible to obtain a correct impression of conditions in the neighboring countries. Moreover, it is difficult to express the views of the fact that in Western Europe there is a tendency towards a theoretical-contemplative approach to the problems, whereas the Americans base their conclusions mainly on the statistical investigation.

In the English language, there is a great differentiation in the use of terms denoting the concept of accident proneness. The term "accident proneness" is used in the case of drivers "who have a tendency to become involved in accidents." But there is also the term "accident-liability" . . . often used in cases where—contrary to the concept of accident proneness—account is not taken of the constant personality factors which might affect the tendency to become involved in accidents. Finally, there is the expression 'accident repeater.' As regards this concept, it is obviously, only used descriptively.

Dr. Karl Evang—Norway—The accident prone driver was a blessed invention on which we would lean for lack of any other firm support in the confused and stormy world of mounting traffic accidents.

Now this whole image is crumbling, disintegrating under the cool and detached analysis of the scientist, the statistician, the clinician, the psychologist, the traffic expert.

Firstly they tell us that a definition has been lacking. There is no generally accepted definition of the accident prone driver. To put this in simpler and more brutal terms: people have been talking without knowing exactly what they were talking about.

We have therefore to accept the unpleasant fact that the very utility and validity of the concept of the accident prone driver is now *sub-judice*. However, let us not throw the baby out with the bath water. The fact that we have not so far been able to identify the accident prone driver does not mean that we have given proof that he does not exist. There are, on the contrary, many observations indicating that individuals in fact exist with a consistent tendency to contribute towards accidents.

Therefore one of the most hopeful means of improving traffic safety to my mind lies in mobilizing the solidarity, the social attitude and responsibility of drivers of motor vehicles. If it is true—which I think it is—that 'a man drives as he lives' then it should also be true that we can educate people to live as safer drivers. STOP

*National Swedish Road Board Standard.
**Standard laid down for obtaining the "Qualite France" label.

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The case of

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Seat Belts

From Page 13

maybe this would convince me, but just seeing it in the paper or the figures wouldn't mean a thing.

Claire: *Now, if they had demonstrations where they used the dummies, for instance, say if this were nationwide where we would see it real often, that every one of us would come across this particular thing. If they had a dummy in the car and they had two cars probably showing one with seat belts and then in the same condition without them what would have happened. Then this would probably convince me more than say statistics.*

Films of such demonstrations are available. Oliver thinks these demonstrations would help convince people, but he wants statistics, too.

Oliver: *To actually show the benefit, I think these visual demonstrations with dummies and accidents with high-speed movies and things where they can slow them down to slow motion so people can see what actually happens to an individual under these conditions and conditions that they could expect to run into under ordinary driving conditions; I think they have to show besides this a believable or reasonably honest set of statistics showing how many cases when this thing would help, and also admit when it wouldn't —even though they had them but they still wouldn't have been saved.*

Without doubt, you can be badly injured or killed with or without a seat belt in an accident, but all objective evidence clearly shows that in almost all cases you will be far better off wearing a seat belt.

Bill: *Safety belts are just like hospitalization insurance. You buy it and hope you never have to use it. I mean, it's there and maybe it's good if you take advantage of it. You know what I mean? It's probably a good factor. I mean, I may even be tempted to try it one of these days myself. But the only thing that is going to make me do it is that I'm going to have to get scared into it. Something is going to have to happen to me to change my mind. I think that given enough time and enough publicity so far as safety is concerned that eventually I would say that 75, 80 per cent of the motorists that are drivers would equip their cars with these safety belts.*

For someone so resistant to seat belts, Bill is generously optimistic about the chances of persuading others to use them.

Realistically, what are the chances of persuading a significant segment of the population to buy and use seat belts?

In California, a state considered to be ahead of most of the rest of the country on seat belts, a joint study by the California Highway Patrol and Automotive Crash Injury Research of Cornell University reported that only 3.6 per cent of 54,348 accident involved automobiles had seat belts. Of the 1,974 cars that did have seat belts, the belts were *not* in use at the time of the accident in 63.3 per cent of the cases.

It is abundantly clear that the American people are not sold on seat belts. They are ill-informed and misinformed regarding them.

Public claims as to the number of lives to be saved each year through the universal use of seat belts range from 5,000 to 20,000.

Perhaps it is not too important to the motorist whether it is 5,000 or 20,000, but it is indicative of the confused state of "seat belt statistics," which doesn't help in assuaging the motorist's confusion about seat belts.

Why is there such resistance to seat belts? Is it simply because people don't have objective information about them? Or does something deeper lie behind this resistance? Perhaps we should find out.

Seat belts cannot replace education and enforcement aimed at the prevention of accidents, but they can reduce death and injury and perhaps constitute a concrete focal point for traffic safety in general.

The successful persuading of a significant segment of the population to buy and use seat belts is an immense task that will take years to accomplish. But isn't it worth it?

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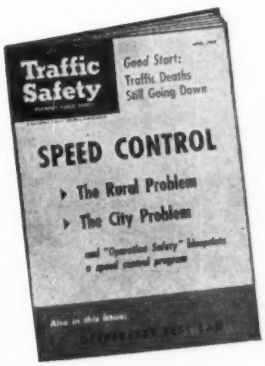

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ABOUT THE AUTHOR

Donald S. Buck has gained a national reputation as a stimulating and sometimes controversial commentator and critic of current fleet accident prevention techniques. He has been concerned with driving safety for the past 27 years. He has been a state trooper, a fleet safety engineer, chief of safety for the U. S. Army Transportation Corps, and director of safety for the U. S. Continental Army Command. Many of his articles have appeared in Commercial Car Journal, and he has frequently addressed the National Safety Congress and various college and university groups.

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